AN ANALYSIS OF THE IMPACT OF VARIATIONS IN MEAN TIME BETWEEN DEMAND ON AIR FORCE FLEET LEVEL AIRCRAFT PARTS INVENTORIES

THESIS

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AFIT-ENV-T-14-J-21

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Abstract

This thesis researched the accuracy of demand forecasting and impact of demand variation on requirements definition for Air Force aircraft secondary items. Specifically, this thesis sought to answer three questions: “How does the Air Force calculate item requirements?”, “How accurate is the current system at predicting future item requirements?”, and “How do variations in predicted demand change item requirements?” The literature review described the Air Force supply system for aircraft secondary items. Analysis into current demand forecast accuracy found that the level of error between actual and predicted historic demand was as high as 92% for the items studied. Furthermore, this analysis identified a flaw in the calculation used by supply specialists to measure demand forecast accuracy. Research found that demand rates are the most influential factor in computing Total Gross Requirements. A 50% change in TOIMDR resulted in a Total Gross Requirement change of 33%. A 25% increase or decrease in TOIMDR created a 16% respective change in Total Gross Requirement. This thesis concluded by providing recommendations for effective accuracy measures and future research topics to improve item requirement forecasting.

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Andrew J. Berger

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List of Acronyms

AAM: Aircraft Availability Model
AFR: Annual Fail Rate
AFSC: Air Force Sustainment Center
ALC: Air Logistic Complex
API: Applications, Programs, Indenture
CICU: Central Interface Control Unit
CSIS: Central Secondary Item Stratifications System
ES: Equipment Specialists
FACT Plus: Forecasting Analysis Comparison Tool Plus
FERB: Fuel & Engine Relay Box
FH: Flying Hour
GAO: Government Accountability Office
IMS: Inventory Management Specialists
IMDS: Integrated Maintenance Database System
KPP: Key Performance Parameter
LRU: Line Replaceable Unit
MFCD: Multi-function Color Display
MTBD: Mean Time Between Demand
MTBF: Mean Time Between Failure
MTTR: Mean Time to Repair
NIIN: National Item Identification Number
NMC: Not Mission Capable
NMCS: Not Mission Capable-Supply
NRTS: Not Repairable This Station
NSN: National Stock Number
OIM: Organizational and Intermediate Maintenance
OWRM: Other War Reserve Material
RDB: Requirement Data Bank
REMIS: Reliability and Maintainability Information System
RMS: Requirements Management System
RTS: Repairable This Station
SAF: Secretary of the Air Force
SIRS: Secondary Item Requirements System
SRRB: Spares Requirements Review Board
TOIMDR: Total Organizational and Intermediate Maintenance Demand Rate
UFC: Up Front Controller
VSL: Variable Safety Level
WRSK-BLSS: War Readiness Spare Kits – Base Level Self-sufficiency Spares
WTIR: What If Item Recomputation

AN ANALYSIS OF THE IMPACT OF VARIATIONS IN MEAN TIME BETWEEN DEMAND ON AIR FORCE FLEET LEVEL AIRCRAFT PARTS INVENTORIES

I. Introduction

General Issue

Budgetary constraints and new sustainment perspectives have changed the way the Air Force maintains aircraft in its inventory. There are no longer warehouses full of spare parts in anticipation of potential maintenance problems or contingency actions. The modern Air Force has adopted new concepts such as lean and AFSO21 (USAF/A4, 2008). These concepts have dramatically changed the way the Air Force does business as they have reduced the level of parts inventories on both a local and fleet level. In order to continue to maintain Air Force capabilities with constrained budgets, the service must better predict aircraft failures and set parts inventories based on the anticipated needs.

According to the U.S. Government Accountability Office (GAO), DOD Supply Chain Management is an area of "High Risk (United States Government Accountability Office, 2013)". In September 2011, the "DOD had $9.2 billion of on hand excess inventory, categorized for potential reuse or disposal and $523 million worth of on-order excess inventory, already purchased but likely to be excess due to changes in requirements (United States Government Accountability Office, 2013)". This study suggested the DOD address its supply chain management practices in order to remove the high risk designation.

The GAO also looked into the Inventory Management of the DOD and found ineffective and inefficient inventory management practices. Prior to 2010, failure to accurately predict demand for spare parts was "a major factor contributing to mismatches between inventory levels and requirements, resulting in purchasing and storing excess inventory (United States Government Accountability Office, 2013)."

One of the challenges in any supply system is matching supply levels with demand. Suppliers react to this challenge in many ways, including creating processes that predict customer demand or systems that can rapidly respond to customer requirements. The United States Air Force is not immune to this issue. The Air Force does not have the ability to quickly respond to changes in customer requirements (Global Logistics & Supply Chain Strategies, 2014). As the Air Force faces dwindling resources, it is increasingly important that the supply system accurately predict demand in order to minimize invested resources while maintaining desired readiness levels (United States Government Accountability Office, 2013).

An area where the Air Force could benefit from accurate predictive modeling is establishing and sustaining aircraft spare part inventories. Availability of aircraft spare parts directly affects the war readiness levels of the Air Force. If parts are not available, the aircraft may become Not Mission Capable due to supply deficiencies. Consistent usage allows for easy prediction of future requirements. Unfortunately, aircraft usage is variable and can be difficult to predict.

Aircraft requirements increase and decrease depending on many factors including flying hours, stress, weather, combat requirements, and age. In the past some of these factors were mitigated through large part inventories. Defense budgetary constraints no

longer allow the Air Force to operate with excess inventory (United States Government Accountability Office, 2013). Large warehouses have been replaced by leaner processes managing the Air Force fleet. In order to maintain mission capable aircraft, the Air Force needs to accurately predict usage and requirements.

Current Air Force predictive analyses for aircraft spare part inventories primarily focus on historical data (AFMC/A4YR, 12 June, 2008). The Air Force uses a computer system known as D200A, or the Secondary Item Requirements Computation System (SIRS), to compute requirements for aircraft spare parts, both repairable and consumable. D200A utilizes many factors including historical failure data, program data, lead times, and pipeline data. These factors are applied to predicted airframe usage in order to define requirements on an aggregate basis. Predicted airframe usage comes from the Air Force flying hour program. The system then uses worldwide item supply to meet the requirements (Air Force Material Command, 2011).

Problem Statement

The purpose of this thesis was to identify the impact of variations in predicted Mean Time Between Demand (MTBD) on Air Force aircraft spare part inventory requirements. This investigation researched current supply chain management theories and methods as they apply to requirements forecasting. Furthermore, it described how current Air Force methods, doctrine, and policy establish aircraft spare part inventories. This included research into the effectiveness of the current method in predicting demand over the eight quarters representing March 2012 through December 2013. This time period represents the data available to the Equipment Specialist from D200A at the time

of this study. Finally, this study investigated how variations in predicted demand rates affect aircraft part levels.

Research Questions

This thesis focused on answering three questions:

1. How does the Air Force conduct aircraft spare part demand forecasting?
2. How effective are current Air Force methods of demand forecasting at meeting actual demand?
3. How will variations in predicted Mean Time Between Demand affect aircraft part levels?

Research Focus

This research focused on the United States Air Force supply system for aircraft spare parts, specifically on how demand forecasting is conducted in the D200A system. Additionally, the research focused on the role Mean Time Between Demand plays in predicting several part inventories for A-10C aircraft.

Methodology

This thesis follows a three part methodology. In the first part, the theory behind demand forecasting and current processes for establishing Air Force aircraft part inventories were identified through research into failure prediction and the Air Force supply system, specifically the D200A Secondary Items Requirements System. Next, D200A data from A-10C aircraft were collected for six avionics components which provided a sample of varying forecasting conditions (Low Volume, High Volume, Stable demand, unstable demand, etc.). Next, the accuracy of current Air Force demand

forecasting was analyzed for the six identified parts. Finally, the effect of variations in demand factors on predicted spare part requirements was analyzed in the Air Force Secondary Item Requirements System.

In the first part of the methodology, the team performed a combination of discussions with subject matter experts and literature review using various Air Force and academic sources to identify current supply processes. This research included reviewing Air Force Instructions (AFIs), Air Force manuals, and other maintenance and logistics guidance. Adding to this information were numerous interviews with Air Force personnel with experience in the maintenance and supply career fields. The data collected through the literature review set the baseline of current Air Force logistics. This stage of research answered the question of how does the Air Force conduct demand forecasting and manage aircraft spare parts.

In the next part of the methodology, the thesis analyzed the Air Force supply system to establish the accuracy of Air Force demand forecasting. The team used historical maintenance data and supply information from six A-10C avionics components that provide a sample of a few common traits found in aircraft spare part inventories (low demand, high demand, etc.). These components were examined in order capture the accuracy and trends of the current demand forecasting system using historical data from the D200A FACT Plus Tool. The results from FACT Plus were verified through independent calculations. This part of the thesis answered the question of how accurate is current Air Force demand forecasting.

Finally, the third part of the methodology analyzed the effect of the Total Organization and Intermediate Maintenance Demand Rate (TOIMDR) and Mean Time

Between Demand (MTBD) on requirements definition in D200A. The TOIMDR for the selected parts was varied by 50%, 75%, and 125% from Dec-13 values and then run through a What If Item Recomputation (WTIR) scenario in D200A. The output of the WTIR includes various Organization and Intermediate Maintenance (OIM) factors and requirements that were then analyzed for trends. Furthermore, these historical Organizational and Intermediate Maintenance (OIM) factors were compared to their historical forecasted values. This was done to show the effect of inaccuracies of factors and usage on requirements definition. This part of the study answered how variations in predicted mean time between demand affect aircraft part requirements.

Assumptions/Limitations

There are several limitations to this research. First, access to D200A was restricted to specific logistics personnel. Results were obtained through these logistics personnel and not directly by the researchers. Other data used comes from the FACT Plus Tool, used by the Air Force for similar purposes as those in this thesis, and were accessed directly by researchers. However, the source of the FACT Plus Tool data is D200A. Much of the D200A data originated as input from multiple other systems such as Reliability and Maintainability Information System (REMIS) (AFMC/A4YR, 12 June, 2008), Integrated Maintenance Data System (IMDS) (AF/A4LM, 26 July, 2010), etc. The sources for that data may not be accurate and up to date, which compounds any error found in the data. Additionally, there were numerous interfacing systems between the originating database and D200A. Each of these interfacing systems had the potential to contaminate and dilute the accuracy of the data.

Another limitation of this study is the ability to focus on only a few components of the A-10C aircraft. Access was again restricted through D200A, only an Equipment Specialist had access to the data required, and only data for parts for which they had responsibility. These concepts and procedures apply to all parts in (USAF/A4, 2008) D200A system and can be duplicated for all the items in D200A. However, while the six items studied are representative of the overall population, such a small sample may skew results.

Implications

The results of this study should improve the understanding of the Air Force supply chain and the effectiveness of current D200A system in setting aircraft spare parts inventories. It will provide guidance on where improvements should be made to improve the efficiency of the supply system. Accurate predictions of demand will allow supply chain managers to better posture spare parts to support the aircraft fleet. Additionally, this will enable the Air Force to avoid wasting money on unnecessary supplies.

Although this study primarily focused on avionics components on the A-10C airframe, the concepts in this thesis should apply to the entire Air Force parts supply system. Further research should focus on a broader selection of airframes and other non-aircraft maintenance efforts.

II. Literature Review

Chapter Overview

This chapter discusses the background of the Air Force aircraft parts supply system and the theories behind part reliability information and spare part inventory demand forecasting. The first section summarizes the different levels of the Air Force aircraft spare part supply system and the governing policies and directives. This section focuses especially on the Inventory Management Specialists, Equipment Specialists, and Engineers in the Air Force Sustainment Centers. The second section of the literature review explores the theory behind system reliability calculations and part failure data. The next section summarizes relevant research and theory related to inventory demand forecasting. The final section identifies common variables used to calculate demand.

Air Force Aircraft Spare Part Supply System and Policy

There are three major levels of the Air Force aircraft spare parts supply system. At the lowest level is maintenance and base level supply which distribute parts and collect data. The intermediate level is at the Air Force Sustainment Centers - Air Logistics Complexes where Inventory Management Specialists and Equipment Specialists provide technical support and handle fleet supply issues (AFMC/A4YR, 12 June, 2008). Finally, at the highest level are Engineers and Program managers who provide advanced technical support and oversee the programs.

Management of aircraft spare parts overlaps three Air Force functional areas: maintenance, logistics, and acquisitions. Air Force guidance related to the aircraft spare parts supply system begins in the acquisition community with AFPD 23-1, *Material*

Management (AF/A4, 15 February 2011), and AFI 63-101, *Integrated Life Cycle Management* (SAF/AQXA, 7 March 2013). AFPD 23-1 establishes high level policy managing materiel and gives Air Force Materiel Command overall responsibility to implement "…methods and maintain models for computing enterprise requirements to support operational needs… (AF/A4, 15 February 2011)". AFI 63-101 identifies the Program Manager as the individual with overall responsibility for all aspects of the project.

Logisticians are primarily governed through AFI 23-101, *Air Force Material Management*, which establishes base level supply management. AFI 23-101 also places Air Force Inventory Management Specialists in charge of world-wide management of aircraft spare parts. Engineers and Equipment Specialists provide technical assistance to the users, Inventory Management Specialists, and support the objectives of the Program Managers (AF/A4LM, 8 August 2013). The Air Force rescinded AFMAN 23-110 before completion of this thesis. AFI 23-101 and other documents replaced AFMAN 23-110. Since AFI 23-101 does not cover all aspects of AFMAN 23-110 which was the basis for much of the supply system researched by this thesis, this thesis will occasionally reference AFMAN 23-110. AFMAN 23-110, Volume 2, Part 2, Chapter 19, *Stockage Policy*, provides most of the Air Force guidance for base retail supply system (AF/A4LM, 1 April 2009).

At the lowest level, aircraft maintenance personnel, governed primarily by AFI 21-101, receive and process aircraft spare parts. Base level maintenance personnel also provide a limited amount of local repair capability for repairable items. Maintenance personnel are also responsible for inputting accurate failure and maintenance information

into the Air Force maintenance databases (AF/A4LM, 26 July, 2010). There are two major database systems approved by AFPAM 63-128, *Guide to Acquisition and Sustainment Life Cycle Management*. The base level database system is Integrated Maintenance Data System (IMDS) (SAF/AQXA, 5 October, 2009). The approved depot level database system is Reliability and Maintainability Information System (REMIS) (SAF/AQXA, 5 October, 2009).

No DOD or Air Force policy specifically requires engineering estimations for demand forecasting. However, DODI 4151.22M, *Reliability Centered Maintenance*, instructs the services to implement a comprehensive reliability and maintainability engineering program whenever feasible. This includes establishing "predictive maintenance approaches (USD/AT&L, 30 June, 2011)."

The Air Force requirement for reliability testing stems from AFI 63-101. This requires acquisition professionals to undertake development planning, which requires product support and acquisition life cycle planning (SAF/AQXA, 7 March 2013). The Air Force also requires sustainability Key Performance Parameters (KPPs) be a part of the acquisitions to ensure "… timely development, and fielding of affordable and sustainable operational systems needed by the warfighter to fulfill stated defense strategy needs with effects based, capabilities-focused material and non-material solutions (SAF/AQXA, 7 March 2013)." AFI 63-101 also directs program managers to ensure that effective failure analyses are implemented that balance feasibility with planned and unplanned maintenance strategies. Furthermore, AFI 63-101 defines materiel reliability as "the probability that the system will perform without failure over a specific interval."

Current Air Force demand forecasting for Air Force aircraft spare part inventories are governed by AFI 23-120, *Air Force Spares Requirements Review Board*, and the Air Force Spares Requirements Review Board (SRRB) (AF/A4/7PY, 9 September, 2013). The SRRB attempts to forecast depot level repairables and Air Force managed consumables using the D200 computer program based on base level flying hours. The collection of systems known as D200 work together and interface with other programs to compute replenishment requirements for secondary items necessary to support AF operations. Specifically D200A, Secondary Item Requirements System (SIRS), and D200N, Central Secondary Item Stratifications System (CSIS), which together are known as the Requirements Management System (RMS) store data on the Requirement Data Bank (RDB). SIRS computes spare parts requirements for all customers worldwide on an aggregate basis, from data supplied not only by other programs in D200, but outside programs both in the AF and other services. It then applies all available worldwide assets to meet these requirements. The inputs and outputs of D200A are listed in AFMCMAN 23-1 Chapter 3 such as, Item Manager Wholesale Requisition Process (D035A), Standard Base Supply System (D002A), etc (AFMC/A4YR, 12 June, 2008). D200A accomplishes this by using historical failure and program data to determine failure rate to be applied to a future program (AFMC/A4YR, 12 June, 2008).

The responsibility of maintaining these systems and the integrity of the requirements falls on the Air Logistic Complexes (ALC). ALC managers and supervisors can delegate to selected logistics personnel the authority to review and validate item computations and provide advice to senior ALC managers, but they are still the ultimate authority. Among the selected logistics personnel delegated this authority

are the Inventory Management Specialists (IMS), Equipment Specialists (ES) (AFMC/A4YR, 12 June, 2008).

The IMS reviews all data for assigned items, is responsible for surveillance of data provided by interfacing systems, online file management of ES created File documentation, and reviewing D200A outputs. From these outputs the IMS will initiate several actions such as acquisition of new assets, termination actions, and disposal of excess assets in an effort to meet AF requirements. The IMS shall make efforts to do this for every item in their file during the maintenance period (AFMC/A4YR, 12 June, 2008). AFI 23-120 sets a goal of less than five percent difference between the D200A calculation and any differences driven by IMS/ES.

The ES works with and advises the IMS on specific parts in the ES's area of responsibility. The ES will review each item's usage, factors, and program details for accuracy and completeness. They observe usage for accuracy and emerging trends that may inform the requirements. They are also the ones that aid in computing the estimated factors that drive the D200A requirement results. They note, document, and track data changes for items in their file. They are the technical advisors to the IMS and ALC management on reliability and requirements (AFMC/A4YR, 12 June, 2008).

AFMCMAN 23-1 documents the procedures to calculate XD1, XD2, XB3, and XF3 secondary item requirements. XD1 and XD2 are depot repairable items. XB3 items are consumables. XF3 are organizational repair items. This manual is a user's guide to the D200A, or SIRS, system. D200A is not used to calculate initial spares; it is used for replenishment of existing systems. The majority of this document describes the various inputs, uses, and outputs of D200A. Chapter three of this manual describes the many

systems that provide inputs into D200A. Chapter nine identifies some of the terms, such as TOIMDR, and many of the displays produced by D200A (AFMC/A4YR, 12 June, 2008).

The most relevant chapter to this study is chapter ten. This chapter describes an item computation known as What If Item Recomputation (WTIR) which can be used to temporarily change inputs into D200A and simulate the system's output. This function is a primary component of this thesis study. The WTIR description can be found in section 10.3. The primary purpose of this feature is to demonstrate the impacts of a potential management decision. Section 10.3 also provides directions for the user to implement a WTIR scenario. Section 10.7 provides guidance on how to change the rates and percentages of the database. This is another component of the WTIR scenarios implemented in this study (AFMC/A4YR, 12 June, 2008).

Aircraft spare part inventories not centrally managed are set based on historical demand or mission impact as directed in AFMAN 23-110, Volume 2, Part 2, Chapter 19 (AF/A4LM, 1 April 2009).

Reliability Theory

One way to measure a system's reliability is through predictive analysis of part failure. This can be measured through several metrics such as Mean Time between Failure (MTBF), Mean Time to Repair (MTTR), and Operational Availability (Ao). All of which provide logistics and engineering professionals with valuable insight into how a system's parts should be managed to best support the system and warfighter. This

section of the research investigated how MTBF is used in industry and how it is determined.

Like any metric, Mean Time between Failure is useless without proper definition and explanation of assumptions. Torell and Avelar suggest a six step process to determine MTBF through physical testing. First, identify the particular item of study. This includes determining what a representative sample will constitute, in sufficient quantity to statistically represent the population. Second, establish a time range for collecting data. It is recommended for items that may have long pipelines that it may be prudent to wait for a four month "aging" process before testing an item. This needs to be balanced with the need to complete the tests in a timely manner. The third step would be to define what a "failure" will be. This will depend on the item itself and how it is used. This may lead to an item having multiple MTBFs for each failure. Step four must allow for sufficient time for the part to be received, diagnosed and repaired. This will determine what failures occurred and then repair the items to aid in determining annual fail rate. Step five is to determine the annual fail rate (AFR). AFR is calculated by multiplying the number of failures in the sample period by the number of sample periods per year. One then divides the annualized number of failures by the quantity of units built during the production period (Torell & Avelar, 2005).

Equation 1: Annual Failure Rate

$$AFR = \frac{Failures\ in\ Sample\ period\ \times \left(\frac{52\ weeks\ per\ year}{Number\ of\ weeks\ in\ sample\ period}\right)}{Cumulative\ operating\ years\ of\ population}$$

Equation 1 is a more accurate way to calculate AFR for items that operate non-continuously. This equation accounts only for the time that they are in operation which is more suited to the situation being investigated by this paper. Finally, step six is to convert AFR to MTBF using Equation 2, assuming a constant failure rate (Torell & Avelar, 2005).

Equation 2: MTBF Equation

$$MTBF = \frac{Hours\ in\ a\ year}{AFR} = \frac{8760hrs}{AFR}$$

MTBF is generally modeled through a stochastic distribution function to predict how often items will fail. The complexity of the item can cause the MTBF calculation to become difficult, especially when non-repairable parts of an item are replaced at regular intervals (Vintr & Vintr, 2010).

Vintr & Vintr describe a process for estimating failure rate for items that that will become increasingly likely to fail the longer they are in operation. Their goal is to decrease the likelihood of overall system/item failing when these non-repairable parts are replaced in a designated time interval. This is very important to modeling the MTBF for complex parts used today. It is necessary to aid in all areas of sustainment, such as logistics planning, Ao analysis, and others (Vintr & Vintr, 2010).

For their study, Vintr & Vintr assume a Weibull distribution underlying MTBF for a group of non-repairable parts. They also assume that all items in a group will be preventatively replaced after a certain operating time and the probability that a failure occurrence can also be described via an equation. Using those assumptions and associated equations, it is possible to determine the cumulative operating time and the

number of expected failed items. Their model allows for more accurate MTBF estimation given periodic part replacement (Vintr & Vintr, 2010).

There is also the issue of what type of failure is occurring and when they might occur. The two main types are hard failures and soft failures. A soft failure is when a part reaches a certain degradation factor and a hard failure occurs when a part stops functioning as intended completely. Tang's and Cheng-Der's three stage method models when failures will occur based on data collected during life-cycle testing, and using a defined threshold. This method is considered to be more accurate as long as the time to soft failure is much different than the end of life for the part (Fuh, 2010).

Where the Air Force uses reliability calculations, they are often focused on MTBF or MTBD. Although the Air Force often uses Mean Time Between Demand, neither it nor MTBF is very accurate for use in describing part failure, as identified by Hogge in his thesis "*Effective Measurement of Reliability of Repairable USAF Systems*." Hogge found that MTBF is not an effective measurement and metrics should be customized for the application in order to provide accurate estimates of the reliability of Air Force systems (Hogge, September 2012). For example, MTBF does not account for the differences in usage of an aircraft (e.g. an aircraft flying 10 hour sorties might not have the same failure rate as an aircraft flying 2 hour sorties). Additionally, many aircraft components do not fail in quantities large enough to establish accurate forecasts based on demand.

D200A uses TOIMDR for requirements computations, which is related to the MTBD. The TOIMDR is equal to the inverse of the MTBD and is measured in hundreds of flight hours for this scenario. The Air Force calculates MTBD according to Equation 3 (AFMC/A4YR, 12 June, 2008).

Equation 3: Air Force MTBD Equation

$$MTBD = \frac{Past\ Installed\ OIM\ Program}{Base\ Repairable\ Generations} = \frac{Time}{Events}$$

Often constant failure rates are assumed which leads to limited analysis in an aging system (Conners, Gauldin, & Smith, 2002). In an ideal system, item failures could be predicted before they occur and a replacement item would be immediately available to replace it. Unfortunately, this is rarely the case and the Air Force uses historical data to compute MTBD to determine part requirements. Accurate predictions of part failures should allow for accurate forecasting of when a demand could occur which, in turn, should minimize fleet inventory levels.

For example, MTBF includes all maintenance actions except scheduled maintenance. MTBD is the estimated amount of operating hours between failures that consume a spare. MTBD could predict when a demand is expected to be placed on the system. This information allows the ES to anticipate how many parts will fail and how many demands will occur as a result for a given time. When a failed item must be replaced with a spare, a demand is placed on D200A.

Inventory Demand Forecasting Theory

Matching supply to demand is a challenge in almost every industry. It is especially difficult in areas like aircraft maintenance where demand fluctuates significantly as a result of numerous changing variables. Matching supply to demand requires three components: accurate demand forecasting, inventory, and responsive supply chains (You & Grossmann, 2008). This section describes some processes used to

calculate inventory demand, issues involved in setting inventory levels, and the accuracy of engineering predictions when used to predict part failure.

Many different models are implemented in applications where there is uncertainty in demand or production. Since it is impossible to eliminate uncertainty, industry has developed four general types of models used to try and control uncertainty: conceptual models, analytical models, simulations models, and artificial intelligence (J, R, J, & F, 2006). Of these models, analytical models are most common although simulations and artificial intelligence are becoming more common and used in the more complex applications (J, R, J, & F, 2006). A common process used in the commercial aircraft parts industry is the Material Requirements Planning system (Ghobbar & Friend, 2004). In the aerospace industry, the aircraft spare parts supply system has been described as a Poisson process (Sherbrooke, 1966). Regardless of the method or process used, the common theme running throughout the literature reviewed is the necessity for accurate forecasting due to the high cost of large inventories and high risk of stock outs.

Stock outs present a huge risk to Air Force operations. Demand for aircraft spare parts is highly variable and failure to meet the demand can risk lives and objectives. Supply chain strategies should match, as accurately as possible, the supply chain to the correct supply strategy. The Air Force aircraft parts supply system contains much uncertainty in both its supply and demand. Changes to DOD priorities and aging aircraft have created a supply system with few remaining sources. Flying hours, missions, and maintenance capabilities vary, adding uncertainty to the demand rates. The best strategy for an application with high demand and supply uncertainty is an agile supply chain (Lee, 2002). Agile supply chains have aspects of both a hedged and responsive system. These

systems are able to respond to varying customer demand while maintaining processes that minimize supply interruptions such as safety stock (Lee, 2002). Current Air Force initiatives do not stress agile supply principles; instead the AFSO 21 Playbook focuses primarily on lean strategies without mentioning alternative supply chain management theories.

Variables Used to Calculate Demand

The following section identifies and defines the major variables and terms used in D200A and related systems. Many of these definitions are derived from their description in AFMCMAN 23-1:

Mean Time Between Demand

As the term implies, MTBD represents the average time between demands. It is calculated by dividing the total operating time by the total number of demands on the supply system during a specific interval of time. The unit of operating time can be hours, months, events or ammunition expenditures, as dictated by the first position of the item's program select code. All six items used in this study have a program select code of one, which identifies flying hours, in hundreds of hours, as the unit of measure. For D200A computations, MTBD results from the ratio of an item’s historical installed Organizational and Intermediate Maintenance (OIM) program to the base reparable generations. It is important to note that MTBD is the frequency of demand, not service life. For these six items, MTBD can be calculated by dividing 100 flying hours by the TOIMDR (AFMC/A4YR, 12 June, 2008).

OIM Program

This term represents the predicted installed usage (In hours, events, ammunition expenditures, etc.) of an item for the future quarters. The number is computed by the Applications, Programs, Indenture (API) system. All items in this study utilize flying hours for the usage variable (AFMC/A4YR, 12 June, 2008).

Total Organizational and Intermediate Maintenance Demand Rate (TOIMDR)

This variable is used to project the number of failures that occur at base level that will put a demand on the supply system. The past TOIMDR is computed by dividing the past quarter's base repairable generations by the previous OIM program. For example, if there were 26 repairable generations last quarter, and the past program was 329600 hours, the TOIMDR would be 0.0079. This then becomes part of the data used to compute future TOIMDRs through a 4 or 8 quarter average, Predictive Logistics (Pre-Log) function, Exponential Smoothing (EXPON) or an estimate (AFMC/A4YR, 12 June, 2008).

The TOIMDR is used to compute the OIM Depot Demand Rate and the OIM Base Repair Rate which cannot be updated directly by the ES, definitions of which can be seen below. The current and five forecast TOIMDRs are applied to the item's OIM future program to compute the OIM operating requirements. When the computed rate is shown, it indicates that the base repairable generations (from 12 to 24 months) and the associated past installed program had been used to compute the rate. It also provides the number of base (repairable this station) RTS plus base (not repairable this station) NRTS plus base condemnations (or the base Rep Gens) that have occurred or are projected to occur during operational use of the aircraft or system (AFMC/A4YR, 12 June, 2008).

The Total Gross Requirement (TOTAL GROSS Rqmt (FULL))

The Total Gross Requirement is the sum of the OIM Operating Requirement, Total Base Stock Level, Depot Safety Level, War Readiness Spare Kits – Base Level Self-sufficiency Spares (WRSK-BLSS) Requirement, and Other War Reserve Material (OWRM) Requirement. (Full) indicates this is the requirement when no budget constraints have been applied to the Aircraft Availability Model (AAM) and Variable Safety Level (VSL) computations (AFMC/A4YR, 12 June, 2008). The terms summed are:

OIM Operating Requirement (OIM OPERATING RQMT)

This is the projection of failures that will become demands on the base supply system to replace base NRTS, base RTS, and base condemnations with serviceable assets. The OIM operating requirements are computed for each quarter of the computation and through the retention period by multiplying the predicted OIM installed program by the predicted OIM demand rate. The results are carried to six decimal places, accumulated and rounded to an integer (AFMC/A4YR, 12 June, 2008).

Total Base Stock Level TOT BASE STK LVL (FULL)

For each pick-off point, the Total Base Stock Level is the sum of the OIM base Order &Shipping Time (O&ST) requirement plus the OIM base repair cycle requirement plus the OIM base safety level (either the Lvl-2, or Lvl-1) plus the Special levels. These are computed from OIM depot demand rate, OIM base repair rate, OIM depot repair cycle days, Base repair cycle days, OIM installed program, and other factors (AFMC/A4YR, 12 June, 2008).

Depot Safety Level DEPOT SAFETY LVL (FULL)

This is the depot safety level when no budget constraints have been applied to the AAM or VSL computations. The OIM base and depot safety levels are determined by using marginal analysis, which finds the combinations of base, depot safety levels which provides maximum logistics support. The OIM depot safety level providing maximum logistic support is added to the depot safety level for the other four segments (base condemnations, depot condemnations, JR condemnations and that portion of the depot repair cycle requirement that relates to the NJR NRTS quantities) (AFMC/A4YR, 12 June, 2008).

War Readiness Spare Kits – Base Level Self-sufficiency Spares (WRSK-BLSS) Requirement

These requirements are governed by AFMAN 23-110,Volume 1, Part 1, Chapter 14. They are developed through collaboration with major commands, SPDs, item management Air Logistics Complexes, and AFMC through reviews to determine rates and factors in determining readiness for wartime application (Air Force Material Command, 2011).

Other War Reserve Material (OWRM) Requirement

This requirement is developed by SIRS OWRM computation. When it is computed it is then kept constant for the entire predicted OIM program. The value will only change when changed by the ES.

These are a few of the main terms used in the D200A/SIRS, spare parts forecasting tool. These terms include, or are derived from, factors from many different sources that are used in D200A computations to define parts requirements. The primary

terms used in this thesis are MTBD and TOIMDR. The TOIMDR is used in calculation of the OIM depot demand rate, and OIM base repair rate which cannot be changed by the ES. TOIMDR is the main rate related to Reliability Theory, Theory of Demand Forecasting, and D200A/SIRS Requirements Forecasting (Air Force Material Command, 2011).

Summary

This chapter discussed the background of the Air Force aircraft parts supply system and the theories behind part reliability information and spare part inventory demand forecasting. The first section summarized the different levels of the Air Force aircraft spare part supply system and the governing policies and directives. It focused especially on the Inventory Management Specialists, Equipment Specialists, and Engineers in the Air Force Sustainment Centers. The second section of the literature review explored the theory behind system reliability calculations and part failure data. The next section summarized relevant research and theory related to inventory demand forecasting, and the final section identified common variables used to calculate demand.

III. Methodology

Chapter Overview

This chapter describes the method used to determine the impact of variations in predicted Mean Time Between Demand. It begins by describing the basics of the D200A demand forecasting system. Next, it identifies six specific Line Replaceable Units (LRUs) that will be used in this study. The third section captures the accuracy of current Air Force demand forecasting for aircraft spare parts. The final section of the methodology demonstrates how "What If" scenarios are performed in D200A. Each section concludes with a description of the method used to analyze the results in chapter four.

D200A Demand Forecasting Process

As discussed earlier, the Air Force uses a computer program called D200A to compute spare requirements based on several factors (AFMC/A4YR, 12 June, 2008). A summary of how D200A requirements computations are done is shown in Figure 1.

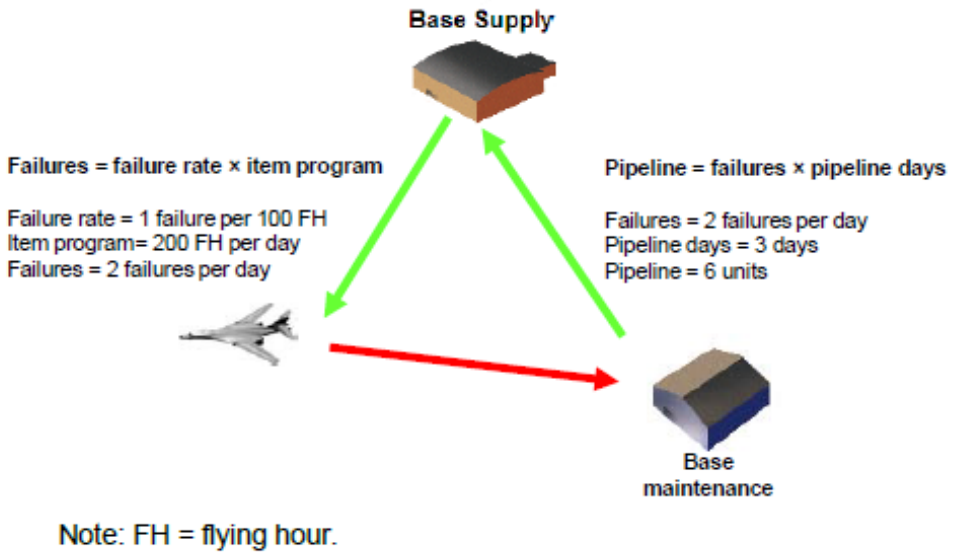

Figure 1: Simplified Pipeline Example (Atchley, et al., 2010)

In this example, predicted failures are calculated by multiplying the predicted failure rate by the item's forecasted usage. If the failure rate increases from 1 Failure per 100FH to 1.5 failures per 100 FH and the daily program is 200FH, the predicted failure rate would increase from 2 failures per day to 3 failures per day. The units needed for the pipeline then increases from 6 units to 9 units. These small changes in accuracy have a large effect on the number of units forecasted. A more realistic example is shown in Figure 2.

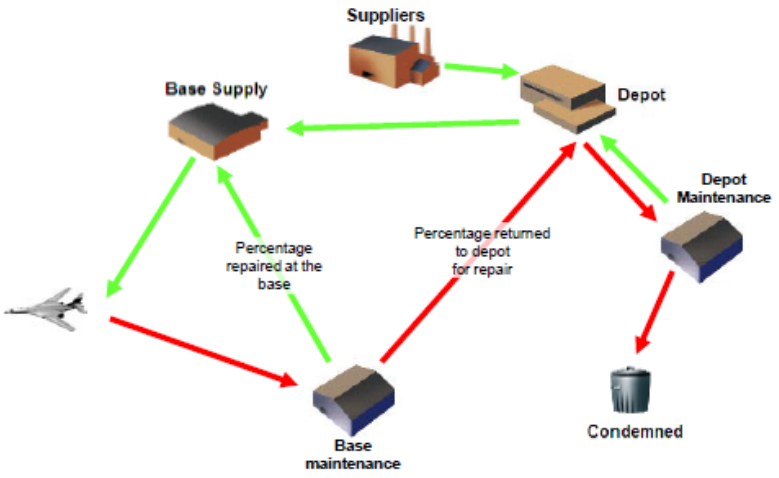

Figure 2: More Detailed Pipeline Example (Atchley, et al., 2010). Red Arrows Represent Flow of Parts After Removal; Green Arrows are Flow of Parts Ready to Install on Aircraft.

In this example, the supply chain is more complicated and not all repairs are done at the base. Now items may be repaired on base, as well as sent back to depot for repair. In this system, items may be condemned, new parts bought, or sent to depot maintenance for repair. In this example the depot repair cycle time, the time for the item to make it to depot maintenance be repaired and sent back, as well as supply lead times and shipping times, must also be factored in. In addition, scheduled maintenance should be considered because some items that are used for repairs are also the same parts used in the replacement items in scheduled maintenance. This compounds the problem even more (Atchley, et al., 2010).

D200A attempts to meet the requirements through computation of various factors such as TOIMDR, OIM Depot Demand Rate, OIM Base Repair Rate, etc. using historical

data. The factors are calculated through five methods an eight quarter moving average, a four quarter moving average, Predictive Logistics model, Exponential Smoothing model, or an estimate created by the ES. The ES indicates which method's calculation will be used in the computation of the requirements (AFMC/A4YR, 12 June, 2008).

Identification of Six LRUs

This thesis focused on six LRUs from the A-10C avionics systems. The six items listed in Table 1 were chosen as representatives of certain common traits found in the aircraft spare parts system. In this thesis, the terms "item" and "LRU" are interchangeable and represent secondary items for Air Force aircraft. The NAV MODE Relay Box represents a generic LRU with medium volume of demand and an increasing demand rate. The MISC Relay Box represents a LRU with low volume of demand and an increasing demand rate. The Fuel and Engine Relay Box (FERB) is a LRU with medium demand volume and a stable demand rate. The Multi-function Color Display Unit (MFCD) is another LRU representing medium demand volume with a stable demand rate. The Up Front Controller (UFC) represents a LRU with high volume of demand and an unstable demand rate. Finally, the Central Interface Control Unit (CICU) represents a LRU with very high demand volume and unstable demand rate. Table 1 lists the descriptions, NSNs, and characteristics of the six LRUs chosen in this study.

Table 1: List of Six A-10C Avionics Components Studied

Description	NSN	Primary Characteristics
NAV MODE Relay Box	5945-01-570-8885	Med demand, increasing demand rate
MISC Relay Box	5945-01-568-1990	Low demand, increasing demand rate
Fuel & Engine Relay Box (FERB)	6110-01-570-6859	Med demand, stable demand rate
Multi-function Color Display (MFCD)	1260-01-543-9004	Med demand, stable demand rate
Up Front Controller (UFC)	1280-01-544-0794	High demand, unstable demand rate
Central Interface Control Unit (CICU)	1280-01-586-7702	Very high, unstable demand rate

Calculate Accuracy of Predicted vs. Historical Demand for the Six LRUs

Historical data for the six LRUs comes from a software program called the Forecasting Analysis Comparison Tool (FACT) Plus module of the Interactive Requirements Information Services (IRIS) toolkit. This software program extracts data from D200A and formats it for easier viewing. The tool enables a user to conduct a comparison between historical demand forecasts and actual demand. This is the tool chosen to establish historical accuracy of demand forecasting on the six LRUs.

In order to obtain the correct data from the FACT Plus module, the user must first input a set of parameters into the main screen of the tool. There are four fields of interest for this study: Wing/ALC, Time Period, Qtr, and SGM NIIN. In all cases the Wing/ALC field was “OO” for the Ogden Air Logistics Complex which manages the six A-10C avionics LRUs. The time period was “Qtr vs. Qtr” and this study started with “Dec13” for the “Qtr”. Figure 3 is an example using the Dec-13 NAV MODE Relay Box. “015708885” was the SGM NIIN for the NAVE MODE Relay box, which was the last nine digits of the NSN. Once all fields are correctly filled, click “Submit” at the bottom of the screen.

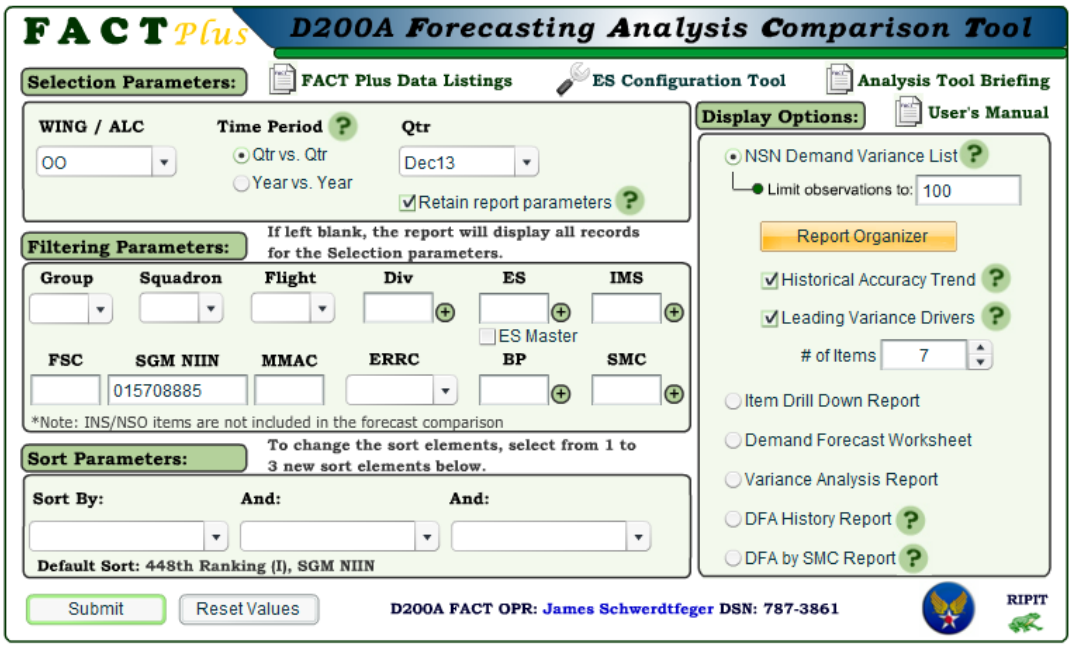

Figure 3: D200A FACT Plus Inputs

Clicking "Submit" brings up the Demand Variance List for the time period selected on the main menu. This screen provides a summary of the demand forecast and actual results during the same period. This includes a chart summarizing Total Group Accuracy over Time. Predicted and actual demand for the quarter can be found on the left side of the screen, beneath the charts. An example of the NAV MODE Relay Box Quarter Demand Variance List for Dec13 is shown in Figure 4. Clicking on the hyperlinked SGM NIIN for this LRU will bring up the Item Drill Down Report.

Figure 4: NAV Mode Relay Box Quarter Demand Variance List for Dec13

The Item Drill Down Report provides the detailed forecasts and actuals for the four previous and future quarters. This report provides the majority of data used in this study to capture the accuracy of current D200A demand forecasts. Figure 5 shows a screen shot of the Dec-13 NAV Mode Relay Box Item Drill Down Report. This screen shot is intended to demonstrate the source of the data used in this section of the thesis method. The primary source of the data is shown in Figure 6, which provides a snapshot of the data extracted from this report.

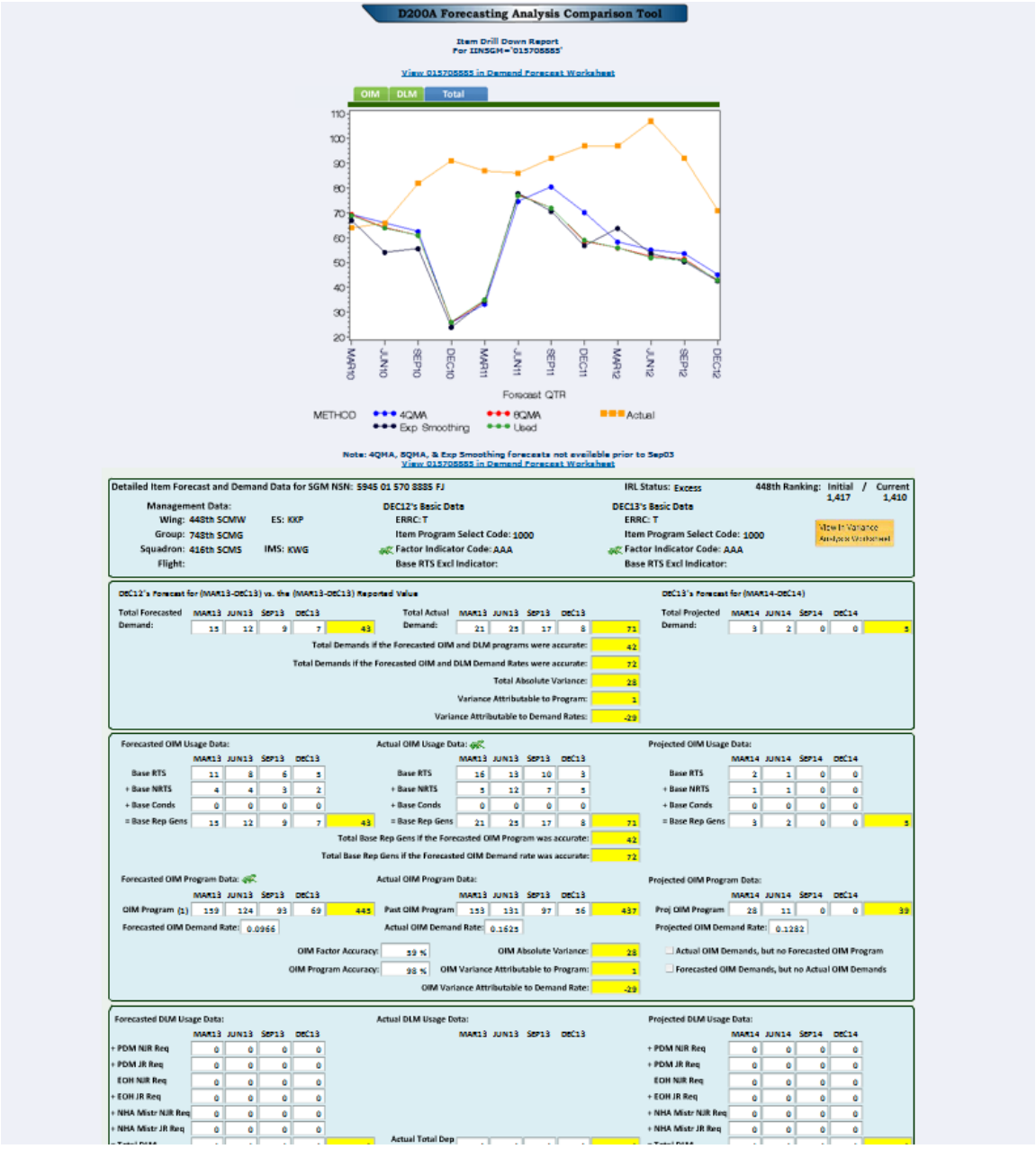

Figure 5: NAV Mode Relay Box Item Drill Down Report for Dec-13

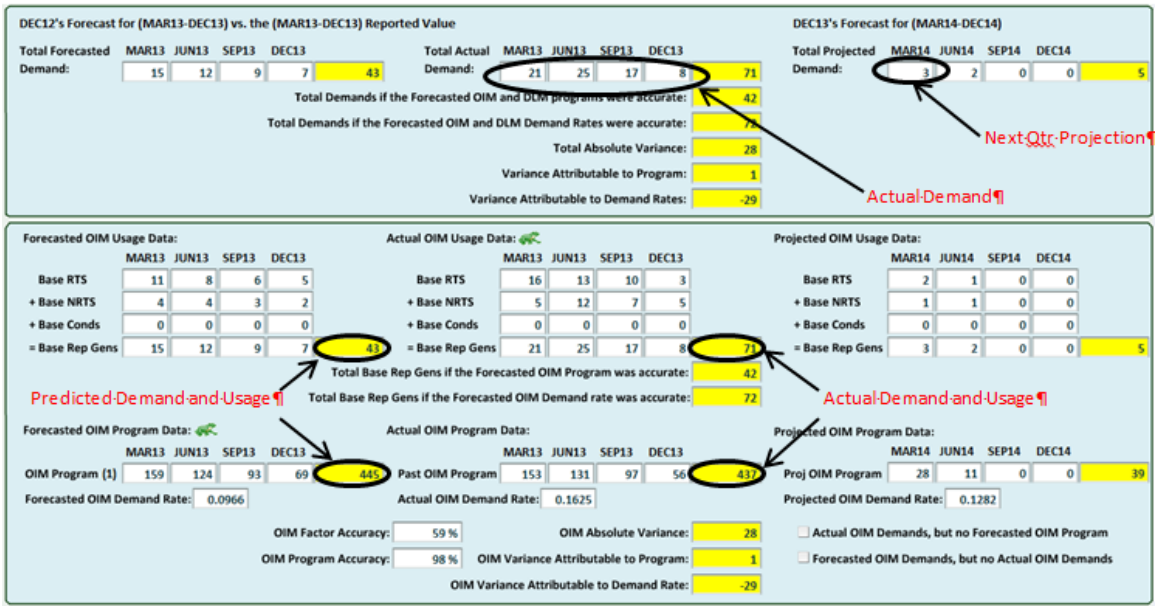

Figure 6: Data Extracted from Dec-13 NAV Mode Relay Box Item Drill Down Report

There are three types of accuracy that relate to D200A demand forecasting. The OIM Factor accuracy identifies how accurate the previous year's forecast was at predicted failures per unit of item usage. The Demand Forecast accuracy is the comparison of the predicted demand for the current quarter to the actual demand of the current quarter. The third type is OIM Program Accuracy which compares the predicted program usage to the actual usage over the last four quarters. Equipment Specialists refine the year forecast every quarter which leads to a different forecast in the previous quarter than anticipated a year previous.

Each LRU has a defined failure rate, primarily based on historical data, which is applied to the predicted program usage to predict demand. Program usage for aircraft parts is usually determined by flying hours. All six LRUs in this study have an Item

Program Select Code of 1000, which identifies flying hours as the unit for program usage. Flying hours are measured in hundreds of hours.

Program usage is not simply the number of flying hours on a particular airframe. Program usage for an item is based on how many aircraft in the fleet have that specific part. For example if a modification takes place, not all airframes in a fleet will have a specific modification. Additionally, factors such as sequestration, deployments, and user preference can affect the percentages of flying hours applied to any specific item. Variables such as these account for the difference between forecasted and actual OIM usage.

To establish historical accuracy for demand forecasting, this study will investigate two data points, Demand Forecast Accuracy and OIM Factor Accuracy. These represent how well the Air Force can predict component failure and demand. This data comes from D200A, but the D200A Forecasting Analysis Comparison Tool compiles the data from D200A into a more user friendly display.

Demand Forecast Accuracy is calculated by dividing the forecasted demands by the actual demands for the quarter. This calculation uses the accuracy equation from the FACT Plus tool user's manual, as shown in Equation 4 (AFSC/LGPS, 2013). This data is found on the left side of the Quarter Demand Variance List and is based off the previous quarter's information. The following example uses December 2013's Quarter Demand Variance List which is shown in Figure 7.

Equation 4: Current FACT Plus Accuracy Equation

$$Accuracy = \left(1 - \frac{|Forecast - Actual|}{MAX(Actual, Forecast)}\right) \times 100\%$$

NAV MODE Relay Box Demand Forecast Accuracy Example

Forecast Demand = *5*
Actual Demand = *8*
Demand Forecast Accuracy = *(1 - |5 – 8|/8)X100%*
= *63%*

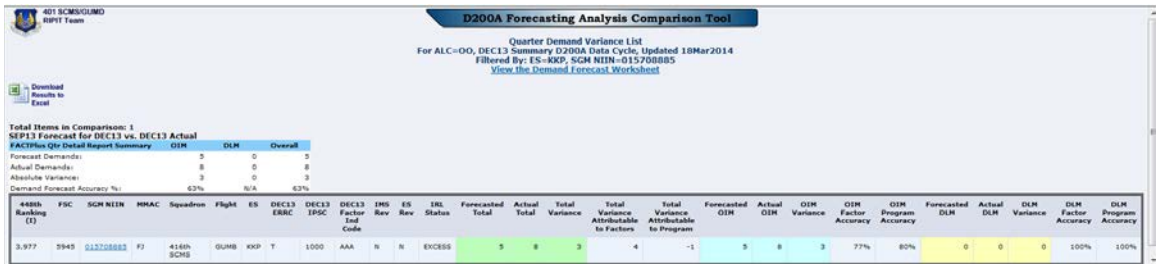

Figure 7: NAV MODE Relay Box December 2013 Quarter Demand Variance List

The Actual OIM Demand Rate and OIM Factor Accuracy are calculated with data from the item's Item Drill Down Report for the applicable quarter. The Actual OIM Demand Rate was calculated by dividing Base Rep Gens by the Actual OIM Program. OIM Factor Accuracy was calculated using Equation 4. This is demonstrated in the following examples using December 2013's Item Drill Down Report for the NAV MODE Relay Box. The Item Drill Down Report is shown in Figure 8, below.

Forecasted OIM Demand Rate = *0.0966*
Actual OIM Demand Rate = *Base Rep Gens / Actual OIM Program*
= *71 / 437*
= *0.1625*

OIM Factor Accuracy = *(1 - |0.0966 – 0.1625|/0.1625) X 100%*
= *59%*

Note: 4QMA, 8QMA, & Exp Smoothing forecasts not available prior to Sep03
View 015708885 in Demand Forecast Worksheet

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 570 8885 FJ — IRL Status: Excess — 448th Ranking: Initial 1,417 / Current 1,410

Management Data:
Wing: 448th SCMW — ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS — IMS: KWG
Flight:

DEC12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC13's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

View in Variance Analysis Worksheet

DEC12's Forecast for (MAR13-DEC13) vs. the (MAR13-DEC13) Reported Value

	MAR13	JUN13	SEP13	DEC13	
Total Forecasted Demand:	15	12	9	7	43
Total Actual Demand:	21	25	17	8	71

Total Demands if the Forecasted OIM and DLM programs were accurate:	42
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	72
Total Absolute Variance:	28
Variance Attributable to Program:	1
Variance Attributable to Demand Rates:	-29

DEC13's Forecast for (MAR14-DEC14)

	MAR14	JUN14	SEP14	DEC14	
Total Projected Demand:	3	2	0	0	5

Forecasted OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	11	8	6	5	
+ Base NRTS	4	4	3	2	
+ Base Conds	0	0	0	0	
= Base Rep Gens	15	12	9	7	43

Actual OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	16	13	10	3	
+ Base NRTS	5	12	7	5	
+ Base Conds	0	0	0	0	
= Base Rep Gens	21	25	17	8	71

Total Base Rep Gens if the Forecasted OIM Program was accurate:	42
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	72

Projected OIM Usage Data:

	MAR14	JUN14	SEP14	DEC14	
Base RTS	2	1	0	0	
+ Base NRTS	1	1	0	0	
+ Base Conds	0	0	0	0	
= Base Rep Gens	3	2	0	0	5

Forecasted OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
OIM Program (1)	159	124	93	69	445

Forecasted OIM Demand Rate: 0.0966

Actual OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
Past OIM Program	153	131	97	56	437

Actual OIM Demand Rate: 0.1625

Projected OIM Program Data:

	MAR14	JUN14	SEP14	DEC14	
Proj OIM Program	28	11	0	0	39

Projected OIM Demand Rate: 0.1282

OIM Factor Accuracy:	59 %	OIM Absolute Variance:	28
OIM Program Accuracy:	98 %	OIM Variance Attributable to Program:	1
		OIM Variance Attributable to Demand Rate:	-29

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

Figure 8: NAV MODE Relay Box Item Drill Down Report for December 2013

Appendix A through Appendix F capture the FACT Plus Quarter Variance Lists and Item Drill Down Reports for all six items studied in this thesis. Each Appendix includes all the Quarter Variance Lists and Item Drill Down Reports for a single item.

Method to Analyze Demand Forecasting Accuracy Data

The Demand Factor Accuracy, OIM Factor Accuracy, and OIM Program Accuracy for these six LRUs were analyzed in chapter four of this thesis. Since this thesis focused on how well the demand forecasting system is performing, it studied the average, over all items investigated, for each factor. The results of the calculations demonstrated in the method section for demand forecasting accuracy for each item and

quarter were tabulated in the analysis section of the thesis for each factor. Using the tabulated results, the researchers calculated the maximum, minimum, average, and standard deviation for each factor. The maximum and minimum established the range of the data. The average and standard deviation values, along with maximum and minimum, established the variation found in the data. Furthermore, the researchers identified any abnormal data points and reviewed D200A and Equipment Specialist information to determine the cause of these abnormalities.

Perform What If simulations for the six LRUs by adjusting the MTBD

For this analysis, the primary variable the team focused on was TOIMDR, which is related to MTBD by the following equation (AFMC/A4YR, 12 June, 2008):

Equation 5: Total Organizational and Intermediate Maintenance Demand Rate

$$TOIMDR = \frac{100}{MTBD} = \frac{Past\ Base\ Rep\ Gens}{Past\ Program}$$

The TOIMDR was multiplied by 50%, 75%, and 125% from current TOIMDR (Dec 13) in D200A as of December 2013 and the values used can be seen in Table 2. It is hypothesized that variations of this magnitude should produce observable changes in the requirements generated by D200A.

Table 2: TOIMDRs used in WTIR Computations

NSN	Noun	Dec-13 TOIMDR	50% TOIMDR	75% TOIMDR	125% TOIMDR
5945-01-570-8885	NAV MODE Relay Box	0.1206	0.0603	0.0905	0.1508
5945-01-568-1990	MISC Relay Box	0.0398	0.0199	0.0299	0.0498
6110-01-570-6859	Fuel & Engine Relay Box (FERB)	0.0960	0.0480	0.0720	0.1200
1260-01-543-9004	Multi-function Control Display Unit (MFCD)	0.0524	0.0270	0.0393	0.0655
1280-01-544-0794	Up Front Controller (UFC)	0.1458	0.0729	0.1093	0.1823
1280-01-586-7702	Central Interface Control Unit (CICU)	0.2150	0.1075	0.1613	0.2688

IMSs and ESs have the ability to request D200A complete a "What If" computation that will produce a full computation but allow certain starting factors to be edited. This allows for the ES and IMS to view how a change in reliability factors will have an impact on D200A and on the Air Force supply chain.

The process for running the WTIR scenario is as follows. First the WTIR menu was selected, as shown in Figure 9.

Figure 9: File Maintenance IRFM Item Recomp Menu (Air Force Material Command, 2011)

The "SPAD SIM FACTOR DATA" was selected as shown in Figure 10. This menu allowed various factors to be changed as seen in Figure 10. The factor that was varied for this study was the TOIMDR. The change in TOIMDR also changes the OIM Depot Demand Rate and the OIM Base Repair Rate the sum of which equals TOIMDR. The OIM Depot Demand Rate and the OIM Base Repair rate are influential in computing OIM Base R-C, OIM O&ST, and OIM Base Safety Level which are constituents of the Total Base Stock Level as was defined in the Literature Review. Hypothetically, these factors would also vary as TOIMDR was varied. All other factors were kept constant or allowed to change as part of the normal operation of the D200A computations.

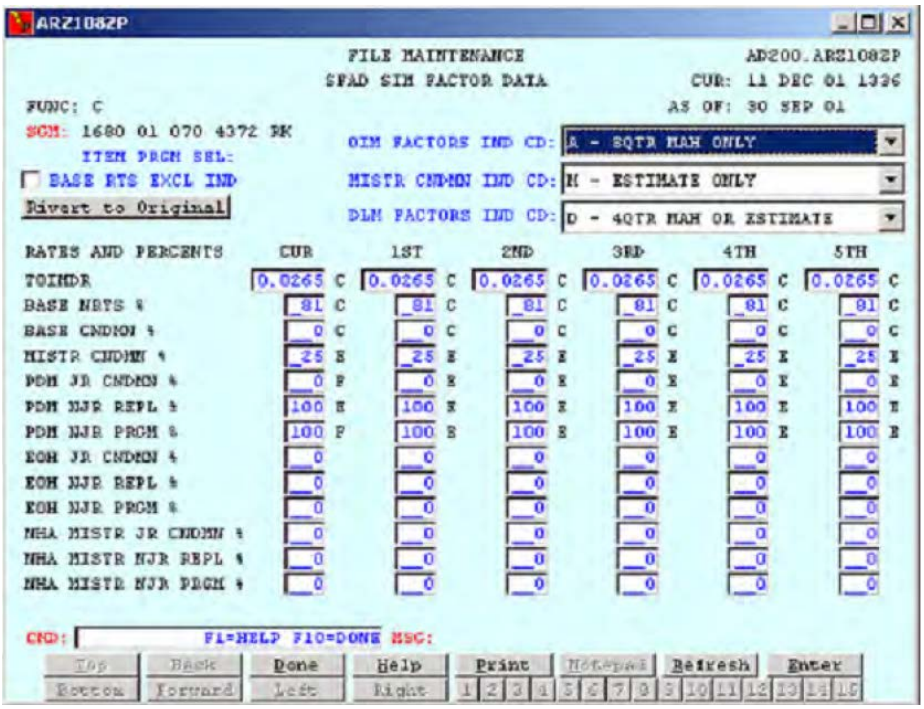

Figure 10: File Maintenance SFAD Simulation Factor Data Screen (Air Force Material Command, 2011)

The output of the WTIR is seen Appendices G-L. These Appendices record the raw data for each LRU and TOIMDR variation. The Dec-13 factors for the CICU can be seen on page 1 Factors/Usage Printout in Table 3.

Table 3: December 2013 CICU Factors

```
PAGE     1                                        REPORT                                          AD200.AFDAX85U
                                            FACTORS/USAGE PRINTOUT                              CUR: 03 APR 14 0900
                                                 SIMULATION                                    AS OF: 31 DEC 13
SGM: 1280 01 586 7702 FJ                                                                      PRGM BEG: 1009

 PART NUMBER: 281A474-6                      ALC: OO          ERRC: T          ACT CD: 7        ITEM PRGM SEL: 1000
       CAGE: 03640                            ES: KKP         PMIC: A             NEW:            FACTOR IND: AAA
  ITEM NAME: CICU                            IMS: KWG         MIEC: 3AE           CAT:           BASE RTS EXCL:
                                             PMS: KWG    INTERP IND:        FEEMS IND:           SFTY LVL EXCL:

  BASE RPR CYCLE DAYS:    4        UNIT PRICE FCST:       181,433.10     SOR   OC   OO   SA   SM   WR   CT       ICS/RIW:
  OIM DEP RPR CYCLE DAYS:  57     UNIT REPAIR COST:        13,332        %    0    0    0    0   20   80     EXPIR DATE: 0000
  NJR DEP RPR CYCLE DAYS:  43  UNIT REPAIR MANHOURS:           31       SOR   DM   OT   UN
    CONDITION X ASSET:      0                                            %    0    0    0

* * * * * * * * * * * * * * * * * * * * * * * * * * * * RATES AND PERCENTS * * * * * * * * * * * * * * * * * * * * * * * * * * * *

                                                      (---------------------- FORECASTS ----------------------)
LAST USED   24 MO   12 MO  PRELOG   EXPON  RATES AND PERCENTS      CUR      1ST      2ND      3RD      4TH      5TH   FCST DT
--------- ------- ------- ------- ------- ------------------  --------- -------- -------- -------- -------- -------- -------
    460     465     494       0     479  NTBD                      465      465      465      465      465      465
 0.2173  0.2150  0.2023  0.0000  0.2088  TOT OIM DMND RATE       0.2150   0.2150   0.2150   0.2150   0.2150   0.2150
 0.2173  0.2150  0.2023  0.0000  0.2088  OIM DEP DMND RATE       0.2150   0.2150   0.2150   0.2150   0.2150   0.2150
 0.0000  0.0000  0.0000  0.0000  0.0000  OIM BASE RPR RATE       0.0000   0.0000   0.0000   0.0000   0.0000   0.0000
    100     100     100             100  BASE NRTS %               100      100      100      100      100      100
      0       0       0               0  BASE PROCESSED %            0        0        0        0        0        0
      0       0       0               0  BASE CNDMN %                0        0        0        0        0        0
      0       0       0               0  MISTR CNDMN %               0        0        0        0        0        0
      0       0       0               0  PDM JR CNDMN %              0        0        0        0        0        0
      0       0       0               0  PDM NJR REPL %              0        0        0        0        0        0
      0       0       0               0  PDM NJR PRGM %              0        0        0        0        0        0
      0       0       0               0  EOH JR CNDMN %              0        0        0        0        0        0
      0       0       0               0  EOH NJR REPL %              0        0        0        0        0        0
      0       0       0               0  EOH NJR PRGM %              0        0        0        0        0        0
      0       0       0               0  NHA MISTR JR CNDMN          0        0        0        0        0        0
      0       0       0               0  NHA MISTR NJR REPL          0        0        0        0        0        0
      0       0       0               0  NHA MISTR NJR PRGM          0        0        0        0        0        0
```

The WTIR then computes future Requirements and Programs based on the information that is input in the WTIR. This output can be seen in Table 4: Example of December 2013 CICU WTIR Outputs.

Table 4: Example of December 2013 CICU WTIR Outputs

PAGE 2 OO-KWG

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 03 APR 14 0900
AS OF: 31 DEC 13

SGM: 1280 01 586 7702 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM				148	284	420	506	591	676	761	817	873
	929	985	1034	1083	1132	1181	1220	1259	1298	1337	1337	1337
	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337
	1337	1337	1337					591	0	817	1034	1220
OIM OPERATING RQMT				32	61	90	109	127	145	164	176	188
	200	212	222	233	243	254	262	271	279	287	287	287
	287	287	287	287	287	287	287	287	287	287	287	287
	287	287	287					127	0	176	222	262
OIM BASE O/ST RQMT				3	3	3	2	2	2	2	1	1
	1	1	1	1	1	1	1	1	1	1	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					2	0	1	1	1
BASE SFTY LVL-2 (FULL)				19	19	19	20	20	20	20	21	21
	21	21	21	21	21	21	21	21	21	21	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					20	0	21	21	21
* BASE SFTY LVL-2 (LTD)				19	19	19	20	20	20	20	21	21
	21	21	21	21	21	21	21	21	21	21	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					20	0	21	21	21
TOT BASE STK LVL (FULL)				22	22	22	22	22	22	22	22	22
	22	22	22	22	22	22	22	22	22	22	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	22					22	0	22	22	22
* TOT BASE STK LVL (LTD)				22	22	22	22	22	22	22	22	22
	22	22	22	22	22	22	22	22	22	22	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	22					22	0	22	22	22
DEPOT SAFETY LVL (FULL)				1	3	3	0	4	4	4	2	2
	2	2	2	2	4	4	3	3	3	3	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	4					4	0	2	2	3
* DEPOT SAFETY LVL (LTD)				1	3	3	0	4	4	4	2	2
	2	2	2	2	4	4	3	3	3	3	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	4					4	0	2	2	3
WRSK-BLSS RQMT				10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	10	10
	10	10	10					10	0	10	10	10

This output allows for the comparison of the influence of the variations on many different factors including OIM Operating Requirement, OIM Program, Base Safety

stock level with full and partial funding, OIM REP GENS (NRTS). These factors detail how many new items will be required to buy and items to be repaired to meet these new demands. Studying these resulting data points will provide the full impact of changing factors on the current supply chain management system.

The OIM Operating Requirement, which represents a projection of failures that will become demands on the base supply system to replace base NRTS, base RTS, and base condemnations with serviceable assets will be recorded (AFMC/A4YR, 12 June, 2008). The OIM Operating Requirement is determined by multiplying the TOIMDR by the OIM Program (AFMC/A4YR, 12 June, 2008). Also recorded is the Total Gross Requirements (the total number of items needed in AF supply to meet requirements) which is the sum total requirements calculated for Depot Safety requirement, Total Base Stock Level, WRSK-BLSS Requirement, and OWRM Requirement. All of which are determined by (AFMC/A4YR, 12 June, 2008). The change in requirement levels is recorded in respect to the changes in TOIMDR.

Method to Analyze Results of D200A "What If" Scenarios

The outputs were analyzed for trends and variations in requirements levels. First, the Total Gross Requirement was plotted versus the future projected program for each variation of TOIMDR to observe how changes in demand affect the required total inventory level. Hypothetically, there would be an inverse relationship between the Total Gross Requirement and the MTBD. Any incongruous results would be examined further to determine which factors, if any, had an impact on the Total Gross Requirement. Second, the constituent requirements of the Total Gross Requirement were examined as a

percentage of Total Gross Requirement to determine if changes in TOIMDR had an influence on all the requirements uniformly.

The researchers calculated the average percent change, and standard deviation of the percent change for requirement. The correlation between the percent change and the variation in TOIMDR was then calculated. The average and standard deviation values, along with the correlation, established the variation found in the data. Equation 6, below, was used to calculate the percent change of the requirement. This equation allowed the researchers to compare the relationship between a change in TOIMDR and the corresponding change in Total Gross Requirement.

Equation 6: Percent Change Equation

$$Percent\ Change = \frac{(Experimental\ Value - Known\ Value)}{Known\ Value} \times 100$$

Finally, in order to demonstrate the real world impact of these variations in TOIMDR and inventory levels, SSgt. Michael Cartone conducted a maintenance analysis study on NMCS hours driven by failures of the six components. SSgt. Cartone was the Assistant NCOIC for the Maintenance Analysis Section of the 23d Maintenance Operations Flight during this study. This study searched IMDS data during the period of 1 January 2012 and 31 December 2013. The total NMCS hours identify the amount of time A-10C aircraft assigned to the 23d Wing at Moody AFB, GA were NMC due to failures of the six components.

Summary

Chapter three of this thesis identified the methods used to study the impact of variations in predicted Mean Time Between Demand. First, it described the basics of the D200A demand forecasting system. Next, it identified six specific Line Replaceable Units (LRUs) that were used in this study. The third section captured the process of studying accuracy of current Air Force demand forecasting for aircraft spare parts. The final section of the methodology demonstrated how "What If" scenarios were performed in D200A. TOIMDR were varied by 50%, 75% and 125% from Dec-13 values, and then WTIR computations were run. The outputs of the computations were recorded, specifically the OIM Operating Requirement and the Total Gross Requirement. Finally, the chapter described the method used to analyze the results for trends and overall impact of TOIMDR on requirements definition in chapter four.

IV. Analysis and Results

Chapter Overview

This chapter of the thesis describes the results of the method and the analysis of the resulting data. The first section captures the outcome of the investigation into current Air Force demand forecasting. This includes comparing results from the FACT Plus tool with an accuracy method proposed by the authors. Additionally, this section analyzes the accuracy for any trends in demand forecasting. The second section demonstrates the results of the D200A What If scenarios. This data is analyzed and compared to identify the relationship between MTBD and inventory requirements. Finally, the chapter ends by summarizing the answers to the three research questions proposed for this thesis.

Analysis of Demand Forecasting Accuracy

The analysis into current accuracy levels of Air Force demand forecasting focused on three factors. The first factor was Demand Forecast Accuracy, which represents how accurately predicted demand matched actual demand in a specific quarter. Next, OIM Factor Accuracy calculates how well the Air Force was able to predict the failure rate of an item over a one year period. Finally, Program Factor Accuracy determines how well the Air Force was able to predict item usage over a one year period.

In this section, the authors analyzed the results of the method described in chapter three regarding Demand Forecast Accuracy, OIM Factor Accuracy, and Program Factor Accuracy. Independent calculations of the factors were performed using the equations defined in the FACT Plus User's Manual as demonstrated in chapter three of this thesis. The authors also identified some issues with the equations and propose a different

method of calculating accuracy. This proposed equation is used to identify the accuracy of Air Force demand forecasting.

Demand Forecast Accuracy

Currently, FACT Plus calculates Demand Forecast Accuracy using Equation 4, as shown in the method section of this thesis. The results of these calculations for each LRU are listed in Table 5: Forecast Accuracy Results, below. Table 5 reports the results of independent calculations performed in Microsoft Excel; it is not simply a collection of reported values from the D200A FACT Plus tool. Using this equation, these calculations will always return values between 0% and 100%, regardless of whether the forecast demand was greater or lower than the actual demand. Calculations for the average, maximum, minimum, and standard deviation of the collected data are included in Table 5. These calculations were used in the results section to compare the accuracies of the different factors and identify which factor has the least variation.

Table 5: Forecast Accuracy Results Using Equation 4

Forecast Accuracy	Mar-12	Jun-12	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13	Dec-13
NAV MODE Relay Box	71%	87%	25%	59%	71%	24%	18%	63%
MISC Relay Box	40%	67%	100%	67%	18%	43%	25%	50%
FERB	37%	79%	32%	65%	100%	50%	22%	93%
MFCD	24%	43%	23%	85%	67%	44%	35%	67%
UFC	76%	76%	50%	83%	48%	59%	40%	52%
CICU	69%	54%	29%	96%	83%	56%	37%	89%
	AVG	56%	**MAX**	100%	**MIN**	18%	**DEV**	24%

The independent calculations identified a number of findings. First, the data reported in the D200A FACT Plus Tool did not always reflect the equation for Forecast

Accuracy. There were five instances where Equation 4 produced different values than the FACT Plus Tool reported. These instances are highlighted above in Table 5. The MISC Relay Box had a calculated value of 67% in Dec-12, while the D200A FACT Plus Tool reported 50%. In Mar-13, the FERB calculated 100%, although the tool reported 89%. The MFCD calculated 67% in Mar-13, while FACT Plus reported 50%. Finally, the UFC calculated 59% in Jun-13 and 52% in Dec-13, although the FACT Plus reported 31% and 8%, respectively.

There was also an anomaly with the Mar-13 FERB quarterly results. In the FACT Plus Quarterly Variance List and Item Drill Down Report, the actual demand was listed as 18. However, later quarters showed the Mar-13 actual demand as 19, which was also reflected in D200A. This study chose to use 19, based on the later data points.

The research team also identified an issue Equation 4 used in the FACT Plus tool. In order to keep the result between 0% and 100%, the managers of the FACT Plus tool adjusted the equation used to calculate demand Forecast Accuracy. Originally, Equation 7, below, always divided by the actual demand. This became confusing to the Inventory Management Specialists and Equipment Specialists since the resulting calculation could have a negative accuracy percentage if the actual demand was less than the difference between forecasted demand and actual demand. The Equipment Specialists and Inventory Management Specialists desired a system that allows easy comparison of factors. To create an equation that eliminates the under forecast bias of Equation 7 and always result in accuracies between 0% and 100%, the managers of the FACT Plus tool decided to divide by the maximum value between forecasted demand and actual demand. This is shown in Equation 8, the same as Equation 4.

Equation 7: Original FACT Plus Equation

$$Original\ Accuracy = \left(1 - \frac{|Forecast - Actual|}{Actual}\right) \times 100\%$$

Equation 8: Revised FACT Plus Equation

$$Revised\ Accuracy = \left(1 - \frac{|Forecast - Actual|}{MAX(Actual, Forecast)}\right) \times 100\%$$

Unfortunately, Equation 8 also had problems with its accuracy calculations. This equation did not result in equal calculations of accuracy for equal differentials between forecast and actual. Unequal results occurred when the maximum value was the "actual" value than when the maximum value was the "forecast" value with an equal differntial. The following example illustrates this problem:

<u>Example 1:</u>

Forecasted demand A = 125, Forecasted demand B = 75, Actual demand = 100

Accuracy A (using Equation 8) = {1 – |125 – 100|/MAX(100,125)}X100% = 80%

Accuracy B (using Equation 8) = 1 – |75 – 100|/MAX(100,75)X100% = 75 %

In both cases, the difference between actual and forecasted is 25; however the accuracy is not the same. This problem is worsened as the forecasted value becomes significantly larger than the actual. The following example will show the difference between an accuracy of 10% for an under forecasted and over forecasted item. Actual demand in this example will remain at 100 units.

<u>Example 2:</u>

Under Forecast Accuracy = 10%, Over Forecast Accuracy = 10%, Actual Demand = 100

Under forecast (rearranged Equation 8, solving for forecasted)

Forecasted demand = Actual(Accuracy – 1) + Actual = (100)(0.1 – 1) + 100

= 10

Over forecast (rearranged Equation 8, solving for forecasted)

Forecasted demand = Actual / Accuracy = 100 / 0.1

= 1000

In both cases, using Equation 8, the accuracy is 10%, however the differential is 90 for the under forecast and 900 for the over forecast.

These examples illustrate the issue of using accuracy as a percentage. Merriam-Webster defines accuracy as the "degree of conformity of a measure to a standard or true value (Merriam-Webster, 2014)." This definition can be restated as accuracy defines how close a variable is to a desired outcome. This measurement represents the distance, in a specified unit, to the desired value. For example, the accuracy of a pilot who did not stop an aircraft within a desired distance of the runway could be stated as 100 feet beyond the end of a 1000 foot runway. It is difficult to express accuracy as a percentage of the forecast or actual, especially when the variable is significantly higher than the desired value.

The authors of this thesis propose a different method for calculating the factors represented by Demand Forecast Accuracy, OIM Factor Accuracy, and Program Factor Accuracy. This study recommends comparing the ratio of forecasted values to actual values and error percentages. Using this method, first calculate the ratio between forecasted and actual. Then take the absolute value of the difference between 100% and this ratio. The result is the error of the variable when compared to actual. These calculations are expressed in Equation 9 and Equation 10. Both the ratio and error

calculation options allow comparison with other factors and programs while presenting equally the impact of over and under forecasting. Error can be expressed as an absolute value or show whether the value is over or under forecast.

Equation 9: Proposed Ratio Equation

$$Ratio = \frac{forecast}{actual} \times 100\%$$

Equation 10: Proposed Error Equation

$$Error = \left|1 - \frac{forecast}{actual}\right| \times 100\%$$

The results of using these equations for the six A-10C LRUs are shown below. Table 6presents the ratios of forecasted demand to actual demand. Table 7 compiles the result of calculating the absolute error using Equation 10.

Table 6: Demand Forecast Ratio Results Using Equation 9

Demand Forecast Ratio	Mar-12	Jun-12	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13	Dec-13
NAV MODE Relay Box	71%	87%	25%	59%	71%	24%	18%	63%
MISC Relay Box	40%	67%	100%	150%	18%	43%	25%	50%
FERB	37%	79%	32%	65%	100%	50%	22%	107%
MFCD	24%	43%	23%	85%	150%	44%	35%	67%
UFC	76%	76%	50%	83%	48%	169%	40%	192%
CICU	69%	54%	29%	96%	83%	56%	37%	89%
	AVG	65%	**MAX**	192%	**MIN**	18%	**DEV**	39%

Table 7: Demand Forecast Error Using Equation 10

Demand Forecast Error	Mar-12	Jun-12	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13	Dec-13
NAV MODE Relay Box	29%	13%	75%	41%	29%	76%	82%	38%
MISC Relay Box	60%	33%	0%	50%	82%	57%	75%	50%
FERB	63%	21%	68%	35%	0%	50%	78%	7%
MFCD	76%	57%	77%	15%	50%	56%	65%	33%
UFC	24%	24%	50%	17%	53%	69%	60%	92%
CICU	31%	46%	71%	4%	17%	44%	63%	11%
	AVG	46%	**MAX**	92%	**MIN**	0%	**DEV**	25%

Based on the FACT Plus equations, Demand Forecast Accuracy ranges from 18% to 100%, with an average of 56%. However, as shown in this section, this is not an accurate representation. In reality D200A forecasts vary between 18% and 192% of the actual values, with an average of 65% of the actual value. These numbers correspond with errors of 0% to 92%, with a 46% average. In summary, the Air Force demand forecasting system has significant levels of error in the current system.

OIM Factor Accuracy

The FACT Plus calculation for OIM Factor Accuracy is very similar to Demand Factor Accuracy. The system again uses Equation 4, as shown in the method section of this thesis. The results of these calculations for each LRU are listed in Table 8, below. Table 8 reports the results of independent calculations performed in Microsoft Excel using D200A data. Using Equation 4, these calculations will always return values between 0% and 100%, regardless of whether the forecast demand was greater or lower than the actual demand. These calculations include the same issue mentioned for Demand Factor Accuracy. Calculations for the average, maximum, minimum, and standard deviation of the collected data are included in Table 8.

Table 8: OIM Factor Accuracy Results Using Equation 4

OIM Factor Accuracy	Mar-12	Jun-12	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13	Dec-13
NAV MODE Relay Box	95%	92%	88%	84%	75%	55%	57%	59%
MISC Relay Box	52%	48%	50%	94%	48%	37%	20%	17%
FERB	88%	96%	75%	56%	76%	71%	71%	98%
MFCD	81%	83%	58%	44%	67%	61%	95%	79%
UFC	78%	78%	100%	97%	87%	92%	93%	88%
CICU	80%	92%	88%	88%	87%	86%	89%	90%
	AVG	75%	**MAX**	100%	**MIN**	17%	**DEV**	20%

The independent calculations identified four differences between what is reported in FACT Plus and the equation it is supposed to use. These instances are highlighted above in Table 8. The MISC Relay Box had a calculated value of 48% in Jun-12, while the D200A FACT Plus Tool reported 49%. In Sep-12, the MISC Relay Box calculated 50%, although the tool reported 51%. The FERB calculated 96% in Jun-12, while FACT Plus reported 97%. Finally, the MFCD calculated 95% in Sep-13, although the FACT Plus reported 94%. Due to the difference of only 1% in all four cases, this is likely due to rounding differences between Microsoft Excel and the FACT Plus tool. Like Demand Forecast Accuracy, this study recommends using Equation 9 and Equation 10 to calculate the OIM Factor Accuracy. The results of using these equations for the six A-10C LRUs are shown below.Table 9 presents the ratios of forecasted OIM demand rate to actual OIM demand rate. Table 10 compiles the result of calculating the absolute error using Equation 10.

Table 9: OIM Factor Ratio Using Equation 9

OIM Factor Ratio	Mar-12	Jun-12	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13	Dec-13
NAV MODE Relay Box	95%	92%	88%	84%	75%	55%	57%	59%
MISC Relay Box	52%	67%	100%	150%	18%	43%	25%	50%
FERB	114%	96%	75%	56%	76%	71%	71%	98%
MFCD	124%	83%	58%	44%	67%	61%	106%	127%
UFC	78%	128%	100%	103%	87%	92%	93%	113%
CICU	125%	92%	88%	88%	87%	86%	112%	111%
	AVG	84%	**MAX**	150%	**MIN**	18%	**DEV**	28%

Table 10: OIM Factor Error Using Equation 10

OIM Factor Error	Mar-12	Jun-12	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13	Dec-13
NAV MODE Relay Box	5%	8%	12%	16%	25%	45%	43%	41%
MISC Relay Box	48%	33%	0%	50%	82%	57%	75%	50%
FERB	14%	4%	25%	44%	24%	29%	29%	2%
MFCD	24%	17%	42%	56%	33%	39%	6%	27%
UFC	22%	28%	0%	3%	13%	8%	7%	13%
CICU	25%	8%	12%	12%	13%	14%	12%	11%
	AVG	25%	**MAX**	82%	**MIN**	0%	**DEV**	20%

It is interesting to note that the data in Table 9 and Table 10 indicates that LRUs with unstable OIM demand rates have the least amount of error in the OIM Factor.

Based on the FACT Plus equations, OIM Factor Accuracy ranges between 17% and 100%, with an average of 75%. However, as shown in this section, this is not an accurate representation. In reality, D200A OIM factors vary between 18% and 150% of the actual values, with an average of 84% of the actual value. These numbers correspond with errors of 0% to 82%, with a 25% average. In summary, the Air Force predicted

OIM factors also have significant levels of error with the current system, although the predicted OIM factors are more accurate than Air Force demand forecasts.

Program Factor Accuracy

The FACT Plus calculation for Program Factor Accuracy is also very similar to the two previous factors. FACT Plus uses Equation 4, as shown in the method section of this thesis. The results of these calculations for each LRU are listed in Table 11, below. Table 11 reports the results of independent calculations performed in Microsoft Excel using D200A data. Using Equation 4, these calculations return values between 0% and 100%, regardless of whether the forecast demand was greater or lower than the actual demand. These calculations include the same issue mentioned for Demand Factor Accuracy and OIM Factor Accuracy. Calculations for the average, maximum, minimum, and standard deviation of the collected data are included in Table 11.

Table 11: Program Factor Accuracy Using Equation 4

Program Factor Accuracy	Mar-12	Jun-12	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13	Dec-13
NAV MODE Relay Box	42%	98%	89%	72%	77%	88%	98%	98%
MISC Relay Box	96%	98%	87%	67%	67%	67%	64%	50%
FERB	48%	98%	87%	67%	67%	67%	98%	97%
MFCD	96%	98%	87%	67%	66%	67%	98%	97%
UFC	96%	98%	87%	67%	67%	67%	98%	97%
CICU	91%	98%	87%	67%	67%	67%	98%	97%
	AVG	81%	**MAX**	98%	**MIN**	42%	**DEV**	16%

The independent calculations did not identify any differences between what is reported in FACT Plus and the equation it is supposed to use. Like Demand Forecast Accuracy and OIM Factor Accuracy, this study recommends using Equation 9 and Equation 10 to calculate the Program Factor Accuracy. The results of using these

equations for the six A-10C LRUs are shown below. Table 12 presents the ratios of forecasted OIM program to past OIM program. Table 13 compiles the result of calculating the absolute error using Equation 10.

Table 12: Program Factor Ratio Using Equation 9

Program Factor Ratio	Mar-12	Jun-12	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13	Dec-13
NAV MODE Relay Box	42%	98%	89%	72%	77%	88%	98%	102%
MISC Relay Box	96%	98%	87%	67%	67%	67%	156%	201%
FERB	48%	98%	87%	67%	67%	67%	98%	103%
MFCD	96%	98%	87%	67%	66%	67%	98%	103%
UFC	96%	98%	87%	67%	67%	67%	98%	103%
CICU	91%	98%	87%	67%	67%	67%	98%	103%
	AVG	87%	**MAX**	201%	**MIN**	42%	**DEV**	25%

It is interesting to note that the program factor ratios in Table 12 are nearly identical for five of the six LRUs. The outliers are the NAV MODE Relay Box, Sep-13 and Dec-13 for the MISC Relay Box, and Mar-12 for the FERB. The NAV MODE Relay Box was phasing out between Sep-11 and Sep-14, which accounts for the differences in this item's Program Factor from the other five items. The MISC Relay Box underwent a modification, driven by TCTO 8R3-162-509, from a -29 configuration to a -31 configuration during Sep-13 and Dec-13. This modification occurred ahead of schedule which accounts for the MISC Relay Box outliers. This study could not identify the cause of the difference in the Mar-12 FERB results. Additionally, although sequestration occurred during some of these eight quarters, there is no obvious evidence of it in the data.

Table 13: Program Factor Error Using Equation 10

Program Factor Error	Mar-12	Jun-12	Sep-12	Dec-12	Mar-13	Jun-13	Sep-13	Dec-13
NAV MODE Relay Box	58%	2%	11%	28%	23%	12%	2%	2%
MISC Relay Box	4%	2%	13%	33%	33%	33%	56%	101%
FERB	52%	2%	13%	33%	33%	33%	2%	3%
MFCD	4%	2%	13%	33%	34%	33%	2%	3%
UFC	4%	2%	13%	33%	33%	33%	2%	3%
CICU	9%	2%	13%	33%	33%	33%	2%	3%
	AVG	20%	**MAX**	101%	**MIN**	2%	**DEV**	20%

Based on the FACT Plus equations, Program Factor Accuracy ranges between 42% and 98%, with an average of 81%. Like Demand Forecast Accuracy and OIM Factor Accuracy, this is not an accurate representation. In reality, D200A Program Factors vary between 42% and 201% of the actual values, with an average of 87% of the actual value. These numbers correspond with errors of 2% to 101%, with a 20% average. Much of this error is due to modifications to the items. In summary, the Air Force predicted program factors also have significant levels of error with the current system, although the predicted program factors are more accurate than Air Force demand forecasts and OIM factors.

This analysis also found some additional unexpected results. The Air Force requirements forecasting system has the least amount of error in the OIM Factor for the LRUs with unstable OIM demand rates. The Program Factor error is nearly identical across five of six LRUs. Finally, sequestration did not appear to affect these data points.

Summary of Demand Forecasting Analysis

This section of the thesis demonstrated that there are issues with the Air Force demand forecasting system. First, the equation used in the FACT Plus system to monitor

the accuracy of the D200A system is flawed. To rectify this issue, this study proposed a new calculation of accuracy using the ratio of forecasted value to actual value and the percent error between predicted and actual. Second, there are significant errors in the current Air Force predicted demand, OIM failure rates, and program usage. Error levels in predicted demand range from 0% to 92%, with a 46% average. OIM Factor Accuracy has error levels between 0% and 82%, with a 25% average. Program Factor Accuracy error ranges from 2% to 101%, with a 20% average. Of these three factors, the current system is most accurate at predicting program usage.

This analysis also identified some interesting, unexpected findings. First, there were numerous cases of unexplained differences between the equation used by FACT Plus and the reported value in the system. Also, the Program Factor error was nearly identical on five of the six LRUs, despite different usage. Finally, although the eight quarters studied included the time during which sequestration was in effect, there were no obvious indications of it.

Analysis of TOIMDR Impact on Requirements

This analysis varied TOIMDR to examine the effect on requirements generated by D200A. First, the Dec-13 TOIMDRs were multiplied by 50%, 75% and 125% to create the TOIMDRs for the test cases. Table 2 shows the resulting TOIMDRs. These test case TOIMDRs were chosen to exaggerate changes in the requirements generated by D200A. While a change of one or two percent may drive changes in requirements, these larger changes would create more obvious patterns to demonstrate the affect TOIMDR had on requirements computation in D200A.

The process for running computations was straightforward. For each LRU, the various WTIR scenarios were run sequentially starting with the current, then 50% of Dec-13 TOIMDR, 75% of Dec-13 TOIMDR, and 125% of Dec-13 TOIMDR. The actual Dec-13 computation was run as a control and baseline. After the computation, the results were printed and recorded, as seen in Table 4 from the Methodology Section. The data was analyzed for changes between the control Dec-13 factors and the altered factors. Special attention was paid to the Total Gross Requirement and the OIM Operating Requirement. The actual printed results from D200A are in Appendices G, I, K, M, O, and Q.

Total Gross Requirement

The Total Gross Requirement was examined first because this requirement, as the name suggests, is the total number of LRUs needed in the inventory to meet the projected demand. The Total Gross Requirement is an aggregation of the other requirements computed by D200A. The Total Gross Requirement for each LRU was plotted for each TOIMDR (Dec-13 and the variations) over the length of the projected future program. Then the percentage of each constituent requirement of the Total Gross Requirement was plotted over the future projected program for each TOIMDR variation. The changes in Total Gross Requirement over the future program were compared for each variation of the TOIMDR. Also the changes in each individual requirement were analyzed for each TOIMDR variation over the projected future program.

The graphs below show the Future Program vs. Total Gross Requirement. The Time, measured in quarters, was plotted along the x-axis. The Total Gross Requirement, in number of LRUs, was on the y-axis.

The NAV Mode and MISC RB Total Gross Requirement did not exhibit the same behavior as the other LRUs examined. The Total Gross Requirements for NAV Mode and MISC RB did change in response to the TOIMDR variations as expected only in the beginning of the projected future program, an example can be seen in the NAV Mode graph in Figure 11 . By September 2014 the requirements became constant and no longer changed with the predicted program or TOIMDR. The constituent requirements of the TOIMDR changed in the same manner as seen in the example of the NAV Mode Dec-13 TOIMDR Requirements percentage of Total Gross Requirement graph in Figure 12. The complete NAV Mode and MISC RB graphs can be seen in Appendices H and J respectively.

Figure 11: NAV Mode Time vs Total Gross Requirement

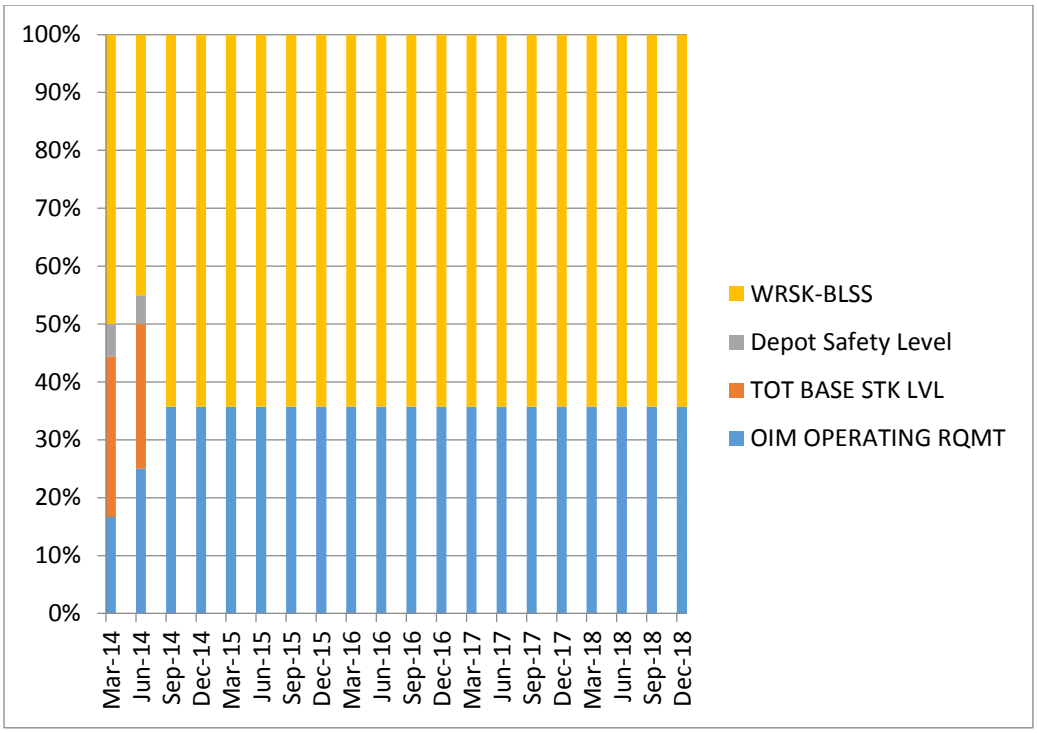

Figure 12: NAV Mode Dec-13 TOIMDR Requirements as percentage of Total Gross Requirement

The difference between the NAV Mode and MISC RB requirements and the other LRU requirements were driven by changes in the OIM program and application of the LRUs. The NAV Mode and MISC RB were predicted to be phased out by September 14. However, in all cases, the OIM Operating Requirement increased as the OIM Program increased. This was expected since the OIM Operating Requirement was calculated by multiplying the TOIMDR by the OIM Program. The phasing out of the LRU was also seen in the decreasing percentage of the Total Base Stock Level and Depot Safety level over the predicted program, as seen in Figure 12.

The effect of variations of TOIMDR over the predicted program can be seen more clearly on the Total Gross Requirements of the FERB, MFCD, UFC, and CICU. In Figure 13 below, the FERB demonstrates the relationship between variations of the TOIMDR and the predicted program for the remaining LRUs. The results for the remaining LRUs can be seen in the Appendices.

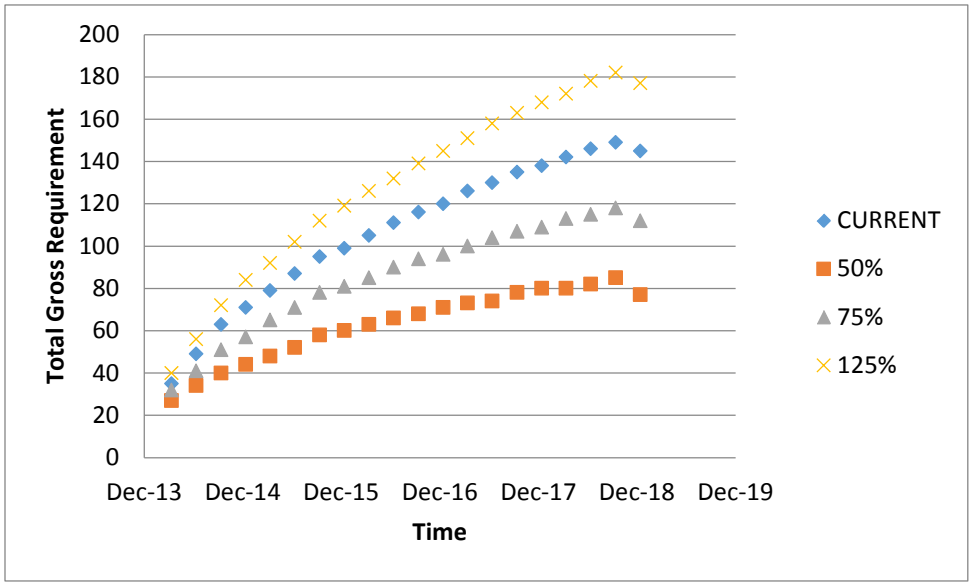

Figure 13: FERB Time vs Total Gross Requirement

Below, Figure 14 through Figure 17 show examples of the percentage requirement of the Total Gross Requirement for the remaining LRUs. Each figure shows a different variation of TOIMDR. The Future Program is plotted along the x-axis and the constituents' requirement percentage of Total Gross Requirement is on the y-axis. The full data can be seen in the Appendix.

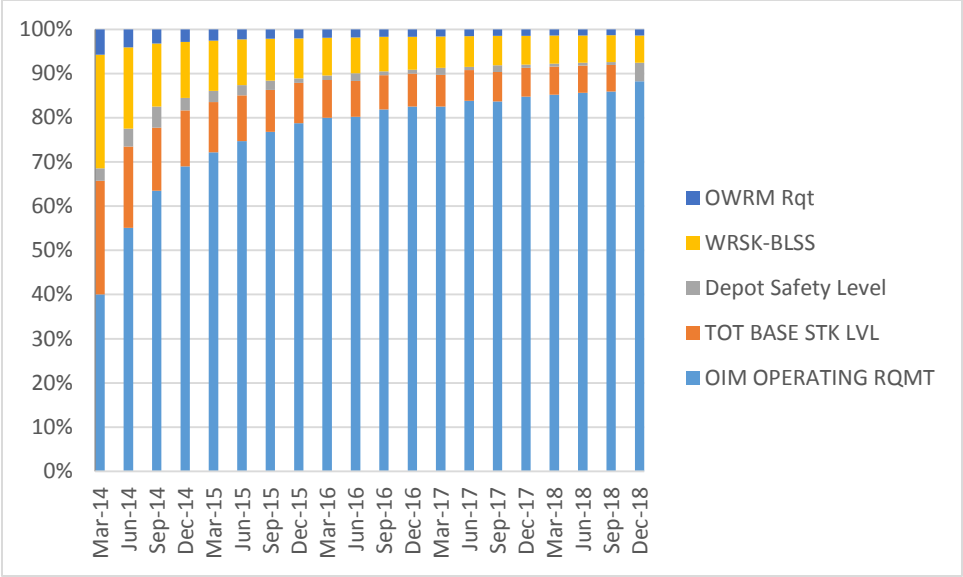

Figure 14: FERB Dec-13 TOIMDR Requirements as percentage of Total Gross Requirement

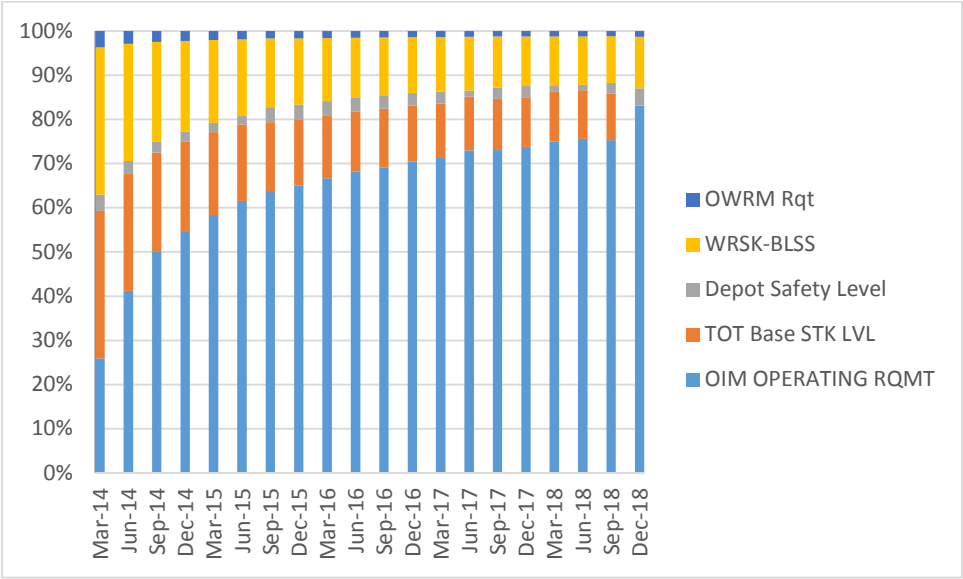

Figure 15: FERB 50% TOIMDR Requirements as percentage of Total Gross Requirement

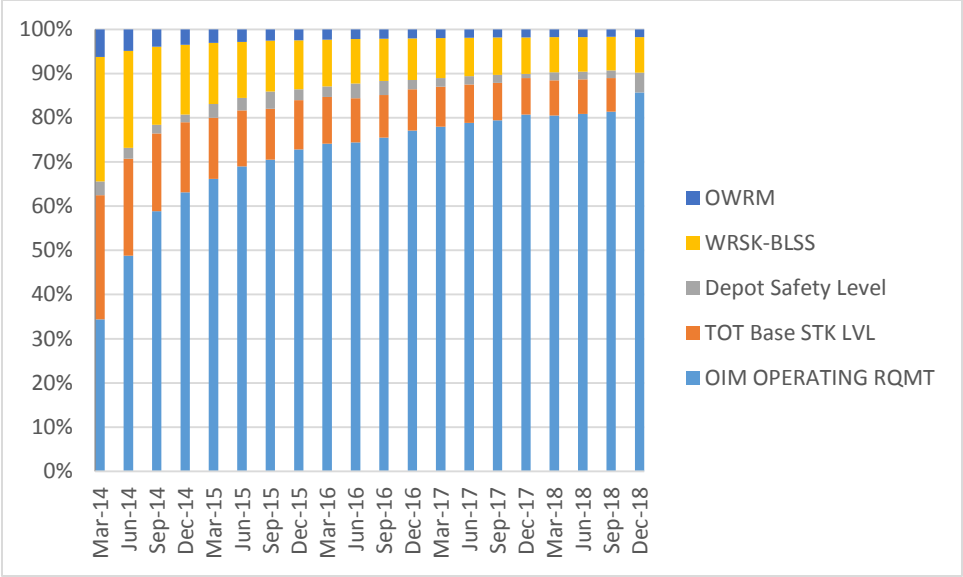

Figure 16: FERB 75% TOIMDR Requirements as percentage of Total Gross Requirement

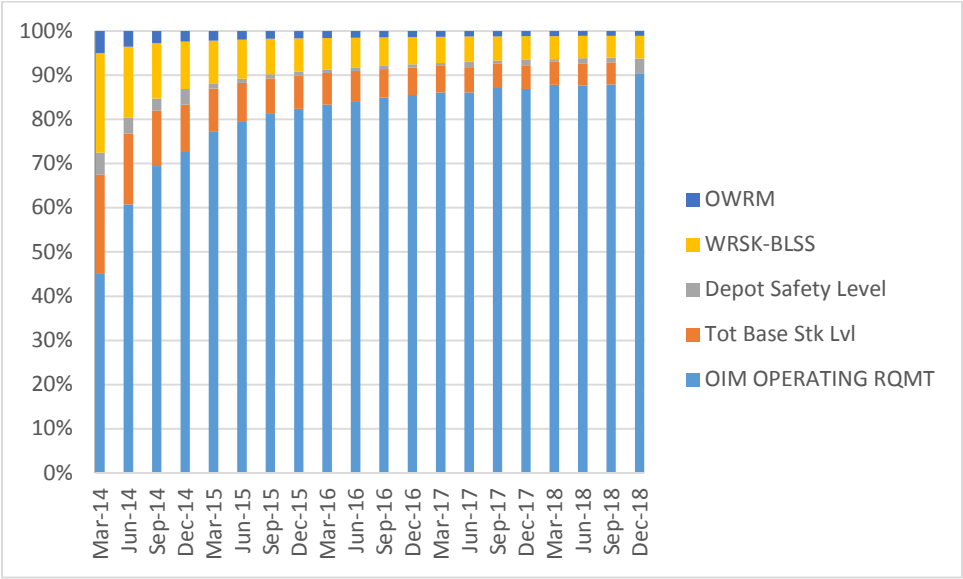

Figure 17: FERB 125% TOIMDR Requirements as percentage of Total Gross Requirement

For the FERB, MFCD, UFC, and CICU the OIM Operating Requirement was the largest single component of the Total Gross Requirement over the OIM Program. Other requirements, such as Total Base Stock Level, may have started as the largest, but they remained relatively constant over the predicted program. The OIM Operating Requirement would change with the changes in the predicted program. OWRM Requirement did fluctuate with the variations in TOIMDR but generally two less for 50% of TOIMDR, one less for 75% of TOIMDR, and 1 more for 125% of TOIMDR. The Total Base Stock Requirement and the WRSK-BLSS requirement remained constant over the OIM Program as well as the TOIMDR variations.

The percent change from the Dec-13 Total Gross Requirement of the Total Gross Requirement for each variation of TOIMDR over the future program was calculated. The average and standard deviation of those calculations are shown in the Tables below.

Table 14: NAV Mode and MISC RB Percent Change of Total Gross Requirements for each variation of TOIMDR

Dec-13 TOIMDR	NAV Mode		MISC RB		**Total**
	AVG % Change	STD DEV	AVG % Change	STD DEV	**AVG % Change**
50%	-21.81	6.51	-23.63	3.54	**-22.72**
75%	-8.18	6.51	-23.96	2.75	**-16.07**
125%	6.96	0.58	-0.67	4.79	**3.14**
Correlation	0.987222		0.940753		**0.964**

Table 14 shows a high average correlation, 0.98 and 0.94, for the NAV Mode and MISC RB respectively. This shows that the variations in TOIMDR linearly related to

changes in Total Gross Requirements for each LRU. It also shows a high correlation between the TOIMDR and total number of LRUs required for Air Force inventory of each LRU. Table 15 also shows the same high correlation for the variations of TOIMDR and the percent change of Total Gross Requirements for the FERB, MFCD, UFC, and CICU.

Table 15: FERB, MFCD, UFC, and CICU Percent Change of Total Gross Requirements for each variation of TOIMDR

Dec-13 TOIMDR	FERB		MFCD		UFC		CICU		**Total**
	AVG % Error	STD DEV	AVG % Error	STD DEV	AVG % Error	STD DEV	AVG % Error	STD DEV	**AVG % Error**
50%	-39.77	5.18	-31.12	6.28	-27.79	8.51	-36.66	6.06	**-33.83**
75%	-19.02	2.87	-16.52	3.06	-10.76	5.34	-18.21	3.25	**-16.13**
125%	19.18	2.65	15.58	3.70	16.81	2.58	15.23	6.15	**16.70**
correlation	0.9998		0.999735		0.999		0.99969		**0.999**

OIM Operating Requirement

The OIM Operating Requirement was analyzed independently since it was impacted more by variations in TOIMDR. This requirement was generated when D200A multiplied the TOIMDR by the predicted OIM Program. The resulting OIM Operating Requirement was graphed versus time to analyze the impact of variations of TOIMDR.

The two graphs below show the Time vs OIM Operating Requirement. The x-axis is the predicted program in quarters. The y-axis shows the number of units required for the OIM Operating Requirement.

Figure 18 shows the NAV Mode OIM Operating Requirement over the predicted program. This represents the MISC RB as well, again to due to the phasing out of the LRUs. In Figure 18 the predicted OIM Program values were small enough that the resulting OIM Operating requirements seemed to reach a minimum value. These small forecasted OIM Programs are due to the part being phased out, or the LRU changed to a different modification and the OIM Program decreased to a small constant value.

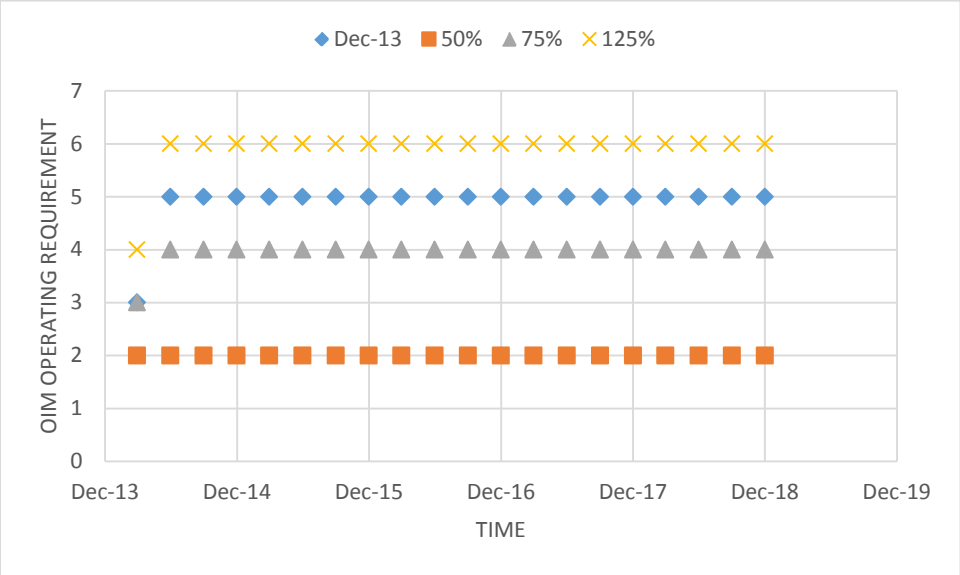

Figure 18: NAV Mode OIM Operating Requirement

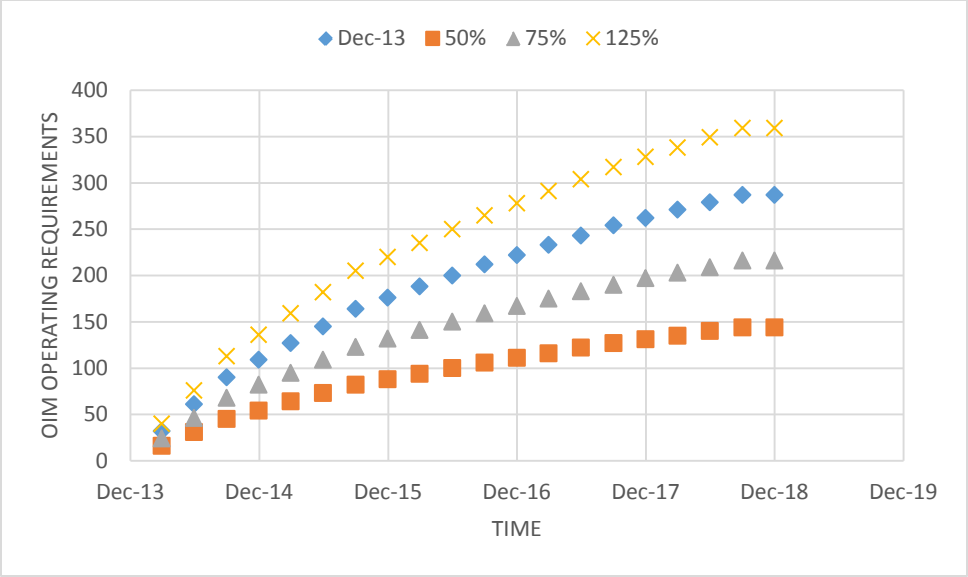

Figure 19: CICU OIM Operating Requirement

As can be seen in the figures above, the relationship between TOIMDR and the OIM Operating Program behaves as expected in most cases. The variation in TOIMDR from the Dec-13 TOIMDR created a corresponding change in the resulting OIM Operating Requirement. For example, if there was a 50% change in the TOIMDR, there was a corresponding 50% change in the OIM Operating requirement. This was the same for all variations of TOIMDR in the FERB, MFCD, UFC, and CICU.

In the remaining items, the OIM program was much larger and therefore the resulting OIM Operating requirements were correspondingly much larger as well. The resulting OIM Operating Requirements were in the hundreds of items required to fulfill requirement. As the OIM Program increased, the change in requirements increased when predicted TOIMDR was varied. This led to changes in the Total Gross Requirement and ultimately Air Force spare part inventory levels.

The correlation between the OIM Operating Requirement and the TOIMDR was also examined. As can be seen in Table 16, the average OIM Operating Requirement percentage of Total Gross Requirement had a high positive correlation to the Percent variance of the TOIMDR. The average correlation was 0.9705. The average OIM Operating Requirement percentage of Total Gross Requirement was 58.5% with a standard deviation of 16.18. This showed the impact of the TOIMDR on OIM Operating Requirements.

Table 16: Correlation Values between OIM Operating Requirement and TOIMDR variations for all LRUs studied

	OIM % AVG over future program					
TOIMDR %	**NAV Mode**	**MISC RB**	**FERB**	**MFCD**	**UFC**	**CICU**
100	34.23	44.9	76.7	63.59	59.72	71.78
50	17.86	29.9	64.7	48.54	43.2	57.96
75	30.06	30	71.5	57.54	52.89	66.4
125	38.48	45	80.29	68.25	65.7	77.36
Correlation	0.96	0.90	0.99	0.99	0.99	0.99
AVG Correla	0.97					
AVG OIM%	58.49					
Std Dev	16.18					

In order to demonstrate the real world impact of these variations in TOIMDR and inventory levels, the researchers requested a maintenance analysis study on NMCS hours driven by failures of the six components. This study searched IMDS data during the period of 1 January 2012 and 31 December 2013. The total NMCS hours identify the amount of time A-10C aircraft assigned to the 23d Wing at Moody AFB, GA were NMC due to failures of the six components.

SSgt Cartone, from the Analysis Section of the 23d Maintenance Operations Flight, assisted this thesis study by performing an analysis into the total amount of Not-Mission Capable-Supply (NMCS) time lost for the six components studied by this thesis. This analysis found that these six components accounted for 2024.1 NMCS hours for the 50 A-10C aircraft of the 23d Wing at Moody AFB, GA between 1 January 2012 and 31 December 2013. The results of this study can be found in Appendix S: A-10C Avionics NMCS Study. It is important to note that this is a conservative estimate of NMCS time since the system used by Maintenance Analysis only accounts for leading maintenance drivers and relies heavily on the integrity of the maintenance personnel who enter data into the system. If another maintenance action with a longer maintenance time hid the maintenance performed on one of these six components, or if the component was cannibalized from another aircraft, NMCS hours would not show against the aircraft or in the Integrated Maintenance Database System (IMDS). However, not all NMCS hours would be attributed to inaccurate predictions. Delays in shipping, documentation errors, and many other factors contribute to NMCS drivers.

Summary of Analysis of TOIMDR Impact on Requirements

The TOIMDR and OIM Program directly influenced OIM Operating Requirement which was also the largest single contributor to the Total Gross Requirement. The OIM Program and TOIMDR also seemed to affect Depot Safety Level, OWRM Requirement but directly (i.e. 75% change in TOIMDR caused a 75% change in the requirement). In this investigation the Total Gross Requirements and OIM Operating Requirements varied with high correlation to the variations in TOIMDR and OIM Program. A 50% change in TOIMDR resulted in a Total Gross Requirement change of 33%. A 75% and 125%

change in TOIMDR had an average effect of Total Gross Requirement of a 16% increase or decrease respectively.

Summary

This chapter of the thesis described the results of the method and the analysis of the resulting data. The first section captured the outcome of the investigation into current Air Force demand forecasting. This included comparing results from the FACT Plus tool with an accuracy method proposed by the authors. Additionally, this section analyzed the accuracy for any trends in demand forecasting. The second section demonstrated the results of the D200A What If scenarios. Finally, this data was analyzed and compared to identify the relationship between MTBD and inventory requirements.

V. Conclusions and Recommendations

Chapter Overview

This chapter answers the three research questions posed at the beginning of the thesis. Recall these questions were: How does the Air Force conduct aircraft spare part demand forecasting? How effective are current Air Force methods of demand forecasting at meeting actual demand? And, how will variations in predicted Mean Time Between Demand affect aircraft part levels?

The first question was answered through research in the literature review, explaining the basics of the Air Force demand forecast system. The second and third questions were answered in the method and analysis sections of this study, demonstrating the accuracy of the demand system and the impact of variations in predicted TOIMDR on requirements. The following three sections provide the conclusions for each of the three questions. Next, the authors explain the implications of the conclusion and suggest a few courses of action based on the research. Finally, the thesis concludes with some suggested areas for future research.

Air Force Demand Forecasting System

The Air Force conducts aircraft spare part demand forecasting primarily through a computer system known as D200A. This system uses historical fail rates applied to predicted item usage to establish predicted requirements for future quarters. These historical fail rates are based on failures reported by maintenance and supply personnel throughout the Air Force logistics systems. This includes organizational, intermediate, and depot maintenance. The item usage is based on the predicted usage of the LRU

during the future quarters. For aircraft spare parts, this is typically based on the applicable airframe's flying hour program.

At the organizational and intermediate level, maintenance and supply personnel input the required failure information. Similarly, depot maintenance also reports any failures they experience. Equipment Specialists and Inventory Management Specialists working at Air Force Sustainment Centers quality check the inputted data and may provide manual overrides to the D200A calculations. These overrides are used if the Inventory Management Specialists and Equipment Specialists are aware of a known change in future usage or failure rates that will not be reflected in the D200A calculations.

In summary, the Air Force demand forecasting system uses a historically based factor applied to predicted item usage to establish quarterly part requirements. Equipment Specialists quality check the input data and adjust D200A calculations to account for future changes not reflected in the D200 system. Engineering failure analysis does not play a direct role in Air Force aircraft spare part management, instead D200A focuses on anticipating MTBD, not anticipating MTBF. MTBF is the estimated time between component failures, some of which may be repairable. MTBD is the estimated time between failures that require replacement of the item. MTBF and MTBD assist the Equipment Specialists and Inventory Management Specialists in setting spare part requirements. Improving the accuracy of these factors would allow for more accurate predictions by the D200A system.

Effectiveness of Current Air Force Demand Forecasting

As demonstrated in the method and results section of this thesis, the six A-10C LRUs studied identified issues with the D200A demand forecasting system. First, the equation used in the FACT Plus system to monitor the accuracy of the D200A system is flawed. To rectify this issue, this study proposed a new calculation of accuracy using the ratio of forecasted value to actual value and the percent error between predicted and actual. Second, there are significant errors in the current Air Force predicted demand, OIM failure rates, and program usage. Error levels in predicted demand range from 0% to 92%, with a 46% average. OIM Factor Accuracy has error levels between 0% and 82%, with a 25% average. Program Factor Accuracy error ranges from 2% to 101%, with a 20% average. Of these three factors, the current system is most accurate at predicting program usage. These error levels indicate that the current system results in inventory levels that average 46% off of the desired levels, with variations from 0% to 92%. These variations affect mission availability when inventory is under forecast, and tie up valuable resources when inventory is over forecast. The exact impact depends on the item.

This analysis also identified some interesting, unexpected findings. First, there were numerous cases of unexplained differences between the equation used by FACT Plus and the reported value in the system. Also, the Program Factor error was nearly identical on five of the six LRUs, despite different usage. Finally, due to the fluctuations in flying hours, funding, and support services, the authors expected to see some negative effects on accuracy during the sequestration periods. Although the eight quarters studied

in this thesis included the time during which sequestration was in effect, there were no obvious indications of it.

Impact of Variations in MTBD on D200A Requirements

The TOIMDR, was multiplied by 50%, 75%, and 125% for each LRU studied: NAV Mode, MISC Relay Box, FERB, MFCD, UFC and CICU. These various TOIMDRs were then used in "What If" Scenarios to compute future item requirements. The OIM Operational Requirement, Total Base Stock Level, Depot Safety Stock, WRSK-BLSS Requirement, OWRM Requirement and Total Gross Requirements were recorded and analyzed for trends.

The TOIMDR was found to have a high positive correlation with the OIM Operational Requirement, with a Correlation Coefficient of 0.97. D200A multiplied the TOIMDR by the predicted flying hour program to get the OIM Operational Requirement. The TOIMDR therefore had a significant impact on the OIM Operational Requirement.

The Total Gross Requirement was the sum of OIM Operational Requirement, Depot Safety Level, Total Base Stock Level, WRSK-BLSS Requirement, and OWRM Requirement. The Depot Safety Level and Total Base Stock levels have demand rate factors derived from the TOIMDR, as well as product lead times, overhaul days, shipping days, and other factors. It was found that the variations in the Total Gross Requirement were mainly influenced by the OIM Operational Requirement and a high correlation to TOIMDR, above 0.90. The OIM Operational Requirement was computed from TOIMDR and OIM Program. The OIM Operational Requirement was on average 58.4% of the Total Gross Requirement. Also a 50% change in TOIMDR resulted in a Total Gross Requirement change of 33%. A 75% and 125% change in TOIMDR had an

average effect of Total Gross Requirement of a 16% increase or decrease respectively. This means that the TOIMDR is one of the most important factors in the D200A system for requirements definition and ultimately spare parts inventory levels. Additionally, these factors are linearly related but not directly proportional.

The accuracy of the TOIMDR and OIM Program are important factors to consider. Variations in TOIMDR will have a direct effect on the OIM Operating Requirement and also likely on other requirements as well. OIM Program also causes changes in the OIM Operating Requirement. These changes in OIM Operating requirement directly change the Total Gross Requirement and the Air Force spare part inventory. The cost associated with this could be very large depending on the cost of the LRUs being examined. Inaccurate predicted failure rates of the six components studied in this thesis likely contributed to 2024 Not Mission Capable hours during the period of 1 January 2012 and 31 December 2013 for A-10C aircraft assigned to Moody AFB, GA.

Significance of Research

The results of this study improve the understanding of the Air Force supply chain and the effectiveness of current D200A system in setting aircraft spare parts inventories. It provided guidance on where improvements should be made to improve the efficiency of the supply system. Accurate predictions of demand allow supply chain managers to better posture spare parts to support the aircraft fleet. The small changes in accuracy do have an effect on the total inventory. Additionally, this enables the Air Force to avoid wasting money on unnecessary spare part inventories. These areas of improvement also aid the Air Force in meeting the criteria set out by the GAO to reduce risk.

Although this study's data focused on representative avionics components from the A-10C airframe, the concepts in this thesis could be applied to any aircraft or the entire Air Force supply system.

Recommendations for Action

This section lists the recommendations for action identified throughout the development of this thesis. These recommendations resulted from various findings and research throughout all sections of the thesis.

First, the Air Force should correct the error in the D200A FACT Plus tool's accuracy equation. This study recommends switching from the current Equation 4 to the ratio and error equations shown in Equation 9 and Equation 10.

Second, the authors found it difficult to research and analyze the Air Force logistics system. The root cause of this issue is that most Air Force logistics personnel are users who do not actually understand the workings and interfaces of the systems they use. This creates a problem for anyone who is researching information on a systems level. These factors create an environment where it is difficult to ascertain specific information such as the actual D200A equation for demand requirements. This also makes it difficult for the Air Force to internally identify real issues with its systems. To mitigate some of these issues, this thesis recommends that the Air Force develop comprehensive training for system users and organic expertise on Air Force systems.

Third, the Air Force should put more emphasis on ensuring the integrity of data at all levels. At every level and in every community, the authors found discrepancies in the data used by the Air Force to determine aircraft spare part requirements. The Air Force

should dedicate more resources to ensuring that the data input into its systems not only matches the correct syntax but reflects work actually performed. This problem was exacerbated by the many interfacing data systems and lack of system knowledge found in users.

Finally, based on the results of this study, the Air Force should improve accuracy of TOIMDR and program predictions. The TOIMDR is multiplied by the predicted flying hour program to compute the OIM Operational Requirement, which is the largest single contributor of the Total Gross Requirement. The Total Gross Requirement is the number of items needed to meet requirements set by D200A. Improving accuracy will help to ensure that requirements are accurate and reduce excess part inventory. The current system results in error levels up to 92% in the six LRUs studied. This level of error can cause significant fluctuations in inventory levels, wasting resources and failing to meet mission requirements.

Recommendations for Future Research

One recommendation would be for more research into the efficacy of the new demand forecasting techniques researched and other methods to improve accuracy. Artificial intelligence systems, neural networks, or fuzzy logic used to predict demand were beyond the scope of this thesis, but future research may find these techniques to be superior to the ones used currently in D200A.

Another recommendation would be for better understanding of supply system and D200A. This thesis found that some personnel who were users of the system do not often fully understand the impact of the decisions they are making, and the downstream

consequences on mission availability. No person, system, or document identified during this study had knowledge of the entire system-of-systems or could explain the aircraft supply system in detail (e.g. equations used to create factors or relate factors to each other, how and why the results of the computations are calculated). There does not seem to be an overarching document or regulation that describes the Air Force's Supply Chain Management strategy and how D200A, the system responsible, works in detail. Data seems to be input into systems without knowledge of its origin or how it is used. Metrics used, such as accuracy, do not seem to correspond to the reality of D200A operations.

Reliability failure analysis could provide useful information that can predict parts levels. This type of analysis assists Engineers and Supply Chain Managers in predicting part levels. Component testing and design allows increased fidelity in predictive models. Engineers can predict the expected lifespan of a component through numerous tests of the component's material strength and usage predictions. Modern computer aided analysis programs and other scientific methods provide many non-destructive methods of testing materials, components, and assemblies without damaging the item. This information can then be used to establish an initial spare part inventory and predict future requirements as they may change throughout the lifecycle of the item.

More research to expand the study to additional components may be useful. While this study focused on the specified LRUs for the A-10C, the D200A system uses the same methods for every part. Therefore the ideas and methods used here should be applicable across any item that uses D200A. The utility and cost effectiveness would depend greatly on the cost of the items, and their procurement costs vs the cost of additional scrutiny and study.

Serially tracked items provide another area to expand this research. This investigation should examine the difference between the methods used to calculate and manage spare part requirements for serially tracked items with non-serially tracked items. Serially tracked items are tracked individually for usage and more attention is paid to failure analysis. These items are normally replaced before failure occurs, which is a significant difference with standard secondary items. Modern technologies such as RFID or WIFI connected devices may now allow economical options to track standard secondary items and provide greater insight into demand forecasting. Additionally, it may offer opportunities to better manage the Air Force spare parts systems.

Finally, a useful extension of this study would be to determine the minimum percent change of TOIMDR that affects inventory levels for an item. This information could be useful in determining desired accuracy levels in the D200A system. This should reduce resources invested in improving accuracy of demand forecasting where improved accuracy will not positively affect inventory levels. It could be used to determine the point of diminishing returns for the studied factors. This study would involve running What If scenarios with small variations in TOIMDR until the system changes predicted requirement levels.

Summary

This chapter answered the three research questions posed at the beginning of the thesis. It explained the basics of the Air Force demand forecast system. Then it summarized the study into the accuracy of the demand system and the impact of variations in predicted TOIMDR on requirements. Next, the authors explained the

implications of the conclusion and suggested a few courses of action based on the research. Finally, the thesis concluded with some suggested areas for future research.

Appendix A: NAV MODE Relay Box FACT Plus Data

NAV MODE Relay Box Quarter Demand Variance Lists (Mar 2012 – Dec 2013)

March 2012

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, MAR12 Summary D200A Data Cycle, Updated 26Jun2012
Filtered By: ES=KKP, SGM NIIN=015708885
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
DEC11 Forecast for MAR12 vs. MAR12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	15	0	15
Actual Demands:	21	0	21
Absolute Variance:	6	0	6
Demand Forecast Accuracy %:	71%	N/A	71%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	MAR12 ERRC	MAR12 IPSC	MAR12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
2,524	5945	015708885	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	15	21	6	10	-4	15	21	6	92%	77%	0	0	0	100%	100%

June 2012

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, JUN12 Summary D200A Data Cycle, Updated 18Sep2012
Filtered By: ES=KKP, SGM NIIN=015708885
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
MAR12 Forecast for JUN12 vs. JUN12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	13	0	13
Actual Demands:	15	0	15
Absolute Variance:	2	0	2
Demand Forecast Accuracy %:	87%	N/A	87%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	JUN12 ERRC	JUN12 IPSC	JUN12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
6,757	5945	015708885	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	13	15	2	13	-11	13	15	2	41%	55%	0	0	0	100%	100%

September 2012

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, SEP12 Summary D200A Data Cycle, Updated 19Dec2012
Filtered By: ES=KKP, SGM NIIN=015708885
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
JUN12 Forecast for SEP12 vs. SEP12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	8	0	8
Actual Demands:	32	0	32
Absolute Variance:	24	0	24
Demand Forecast Accuracy %:	25%	N/A	25%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	SEP12 ERRC	SEP12 IPSC	SEP12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
784	5945	015708885	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	8	32	24	35	-11	8	32	24	59%	42%	0	0	0	100%	100%

December 2012

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, DEC12 Summary D200A Data Cycle, Updated 19Mar2013
Filtered By: ES=KKP, SGM NIIN=015708885
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
SEP12 Forecast for DEC12 vs. DEC12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	17	0	17
Actual Demands:	29	0	29
Absolute Variance:	12	0	12
Demand Forecast Accuracy %:	59%	N/A	59%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	DEC12 ERRC	DEC12 IPSC	DEC12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,143	5945	015708885	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	17	29	12	13	-1	17	29	12	62%	94%	0	0	0	100%	100%

March 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, MAR13 Summary D200A Data Cycle, Updated 18Jun2013
Filtered By: ES=KKP, SGM NIIN=015708885
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
DEC12 Forecast for MAR13 vs. MAR13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	15	0	15
Actual Demands:	21	0	21
Absolute Variance:	6	0	6
Demand Forecast Accuracy %:	71%	N/A	71%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	MAR13 ERRC	MAR13 IPSC	MAR13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
2,369	5945	015708885	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	EXCESS	15	21	6	5	1	15	21	6	68%	96%	0	0	0	100%	100%

June 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, JUN13 Summary D200A Data Cycle, Updated 18Sep2013
Filtered By: ES=KKP, SGM NIIN=015708885
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
MAR13 Forecast for JUN13 vs. JUN13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	6	0	6
Actual Demands:	25	0	25
Absolute Variance:	19	0	19
Demand Forecast Accuracy %:	24%	N/A	24%

448th Ranking (I)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	JUN13 ERRC	JUN13 IPSC	JUN13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
631	5945	015708885	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	Y	EXCESS	6	25	19	25	-6	6	25	19	49%	48%	0	0	0	100%	100%

September 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, SEP13 Summary D200A Data Cycle, Updated 18Dec2013
Filtered By: ES=KKP, SGM NIIN=015708885
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
JUN13 Forecast for SEP13 vs. SEP13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	3	0	3
Actual Demands:	17	0	17
Absolute Variance:	14	0	14
Demand Forecast Accuracy %:	18%	N/A	18%

448th Ranking (I)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	SEP13 ERRC	SEP13 IPSC	SEP13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,087	5945	015708885	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	EXCESS	3	17	14	23	-9	3	17	14	68%	26%	0	0	0	100%	100%

December 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, DEC13 Summary D200A Data Cycle, Updated 18Mar2014
Filtered By: ES=KKP, SGM NIIN=015708885
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
SEP13 Forecast for DEC13 vs. DEC13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	5	0	5
Actual Demands:	8	0	8
Absolute Variance:	3	0	3
Demand Forecast Accuracy %:	63%	N/A	63%

448th Ranking (I)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	DEC13 ERRC	DEC13 IPSC	DEC13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
3,977	5945	015708885	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	EXCESS	5	8	3	4	-1	5	8	3	77%	80%	0	0	0	100%	100%

NAV MODE Relay Box Item Drill Down Reports (Mar 2012 – Dec 2013)

March 2012

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 570 8885 FJ

IRL Status: Repair

448th Ranking: Initial / Current
828 951

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

MAR11's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

MAR12's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

MAR11's Forecast for (JUN11-MAR12) vs. the (JUN11-MAR12) Reported Value

	JUN11	SEP11	DEC11	MAR12	
Total Forecasted Demand:	8	9	9	9	35
Total Actual Demand:	16	26	24	21	87

MAR12's Forecast for (JUN12-MAR13)

	JUN12	SEP12	DEC12	MAR13	
Total Projected Demand:	13	13	15	15	56

Total Demands if the Forecasted OIM and DLM programs were accurate:	83
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	37
Total Absolute Variance:	52
Variance Attributable to Program:	-49
Variance Attributable to Demand Rates:	-3

Forecasted OIM Usage Data:

	JUN11	SEP11	DEC11	MAR12	
Base RTS	6	7	6	7	
+ Base NRTS	2	2	3	2	
+ Base Conds	0	0	0	0	
= Base Rep Gens	8	9	9	9	35

Actual OIM Usage Data:

	JUN11	SEP11	DEC11	MAR12	
Base RTS	11	12	18	16	
+ Base NRTS	5	14	6	5	
+ Base Conds	0	0	0	0	
= Base Rep Gens	16	26	24	21	87

Projected OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	9	9	11	10	
+ Base NRTS	4	4	4	5	
+ Base Conds	0	0	0	0	
= Base Rep Gens	13	13	15	15	56

Total Base Rep Gens if the Forecasted OIM Program was accurate:	83
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	37

Forecasted OIM Program Data:

	JUN11	SEP11	DEC11	MAR12	
OIM Program (1)	101	106	110	110	427

Forecasted OIM Demand Rate: 0.0820

Actual OIM Program Data:

	JUN11	SEP11	DEC11	MAR12	
Past OIM Program	283	270	235	225	1,013

Actual OIM Demand Rate: 0.0859

Projected OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
Proj OIM Program	157	157	183	182	679

Projected OIM Demand Rate: 0.0825

OIM Factor Accuracy:	95 %	OIM Absolute Variance:	52
OIM Program Accuracy:	42 %	OIM Variance Attributable to Program:	-49
		OIM Variance Attributable to Demand Rate:	-3

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

June 2012

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 570 8885 FJ

IRL Status: Repair

448th Ranking: Initial / Current
4,501 4,455

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

JUN11's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

JUN12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

JUN11's Forecast for (SEP11-JUN12) vs. the (SEP11-JUN12) Reported Value

	SEP11	DEC11	MAR12	JUN12	
Total Forecasted Demand:	19	19	20	19	77
Total Actual Demand:	26	24	21	15	86

JUN12's Forecast for (SEP12-JUN13)

	SEP12	DEC12	MAR13	JUN13	
Total Projected Demand:	8	15	15	14	52

Total Demands if the Forecasted OIM and DLM programs were accurate:	79
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	84
Total Absolute Variance:	9
Variance Attributable to Program:	-2
Variance Attributable to Demand Rates:	-7

Forecasted OIM Usage Data:

	SEP11	DEC11	MAR12	JUN12	
Base RTS	14	14	14	14	
+ Base NRTS	5	5	6	5	
+ Base Conds	0	0	0	0	
= Base Rep Gens	19	19	20	19	77

Actual OIM Usage Data:

	SEP11	DEC11	MAR12	JUN12	
Base RTS	12	18	16	11	
+ Base NRTS	14	6	5	4	
+ Base Conds	0	0	0	0	
= Base Rep Gens	26	24	21	15	86

Projected OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	6	10	11	10	
+ Base NRTS	2	5	4	4	
+ Base Conds	0	0	0	0	
= Base Rep Gens	8	15	15	14	52

Total Base Rep Gens if the Forecasted OIM Program was accurate:	79
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	84

Forecasted OIM Program Data:

	SEP11	DEC11	MAR12	JUN12	
OIM Program (1)	238	251	251	251	991

Forecasted OIM Demand Rate: 0.0777

Actual OIM Program Data:

	SEP11	DEC11	MAR12	JUN12	
Past OIM Program	270	235	225	286	1,016

Actual OIM Demand Rate: 0.0846

Projected OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
Proj OIM Program	105	183	182	182	652

Projected OIM Demand Rate: 0.0798

OIM Factor Accuracy:	92 %	OIM Absolute Variance:	9
OIM Program Accuracy:	98 %	OIM Variance Attributable to Program:	-2
		OIM Variance Attributable to Demand Rate:	-7

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

September 2012

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 570 8885 FJ

IRL Status: Repair

448th Ranking: Initial / Current
2,140 / 2,101

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

SEP11's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP11's Forecast for (DEC11-SEP12) vs. the (DEC11-SEP12) Reported Value

	DEC11	MAR12	JUN12	SEP12	
Total Forecasted Demand:	18	18	18	18	72

	DEC11	MAR12	JUN12	SEP12	
Total Actual Demand:	24	21	15	32	92

Total Demands if the Forecasted OIM and DLM programs were accurate:	81
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	82
Total Absolute Variance:	20
Variance Attributable to Program:	-9
Variance Attributable to Demand Rates:	-11

SEP12's Forecast for (DEC12-SEP13)

	DEC12	MAR13	JUN13	SEP13	
Total Projected Demand:	17	15	11	8	51

Forecasted OIM Usage Data:

	DEC11	MAR12	JUN12	SEP12	
Base RTS	12	12	13	12	
+ Base NRTS	6	6	5	6	
+ Base Conds	0	0	0	0	
= Base Rep Gens	18	18	18	18	72

Actual OIM Usage Data:

	DEC11	MAR12	JUN12	SEP12	
Base RTS	18	16	11	22	
+ Base NRTS	6	5	4	10	
+ Base Conds	0	0	0	0	
= Base Rep Gens	24	21	15	32	92

Total Base Rep Gens if the Forecasted OIM Program was accurate:	81
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	82

Projected OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	12	11	8	5	
+ Base NRTS	5	4	3	3	
+ Base Conds	0	0	0	0	
= Base Rep Gens	17	15	11	8	51

Forecasted OIM Program Data:

	DEC11	MAR12	JUN12	SEP12	
OIM Program (1)	220	220	220	220	880

Forecasted OIM Demand Rate: 0.0818

Actual OIM Program Data:

	DEC11	MAR12	JUN12	SEP12	
Past OIM Program	235	225	276	249	985

Actual OIM Demand Rate: 0.0934

Projected OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
Proj OIM Program	194	159	127	95	575

Projected OIM Demand Rate: 0.0887

OIM Factor Accuracy:	88 %	OIM Absolute Variance:	20
OIM Program Accuracy:	89 %	OIM Variance Attributable to Program:	-9
		OIM Variance Attributable to Demand Rate:	-11

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

December 2012

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 570 8885 FJ

IRL Status: Repair

448th Ranking: Initial / Current
1,182 / 1,166

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

DEC11's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC11's Forecast for (MAR12-DEC12) vs. the (MAR12-DEC12) Reported Value

	MAR12	JUN12	SEP12	DEC12	
Total Forecasted Demand:	15	15	14	15	59

	MAR12	JUN12	SEP12	DEC12	
Total Actual Demand:	21	15	32	29	97

Total Demands if the Forecasted OIM and DLM programs were accurate:	82
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	70
Total Absolute Variance:	38
Variance Attributable to Program:	-25
Variance Attributable to Demand Rates:	-13

DEC12's Forecast for (MAR13-DEC13)

	MAR13	JUN13	SEP13	DEC13	
Total Projected Demand:	15	12	9	7	43

Forecasted OIM Usage Data:

	MAR12	JUN12	SEP12	DEC12	
Base RTS	10	11	9	11	
+ Base NRTS	5	4	5	4	
+ Base Conds	0	0	0	0	
= Base Rep Gens	15	15	14	15	59

Actual OIM Usage Data:

	MAR12	JUN12	SEP12	DEC12	
Base RTS	16	11	22	21	
+ Base NRTS	5	4	10	8	
+ Base Conds	0	0	0	0	
= Base Rep Gens	21	15	32	29	97

Total Base Rep Gens if the Forecasted OIM Program was accurate:	82
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	70

Projected OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	11	8	6	5	
+ Base NRTS	4	4	3	2	
+ Base Conds	0	0	0	0	
= Base Rep Gens	15	12	9	7	43

Forecasted OIM Program Data:

	MAR12	JUN12	SEP12	DEC12	
OIM Program (1)	174	174	174	167	689

Forecasted OIM Demand Rate: 0.0856

Actual OIM Program Data:

	MAR12	JUN12	SEP12	DEC12	
Past OIM Program	225	276	249	206	956

Actual OIM Demand Rate: 0.1015

Projected OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
Proj OIM Program	159	124	93	69	445

Projected OIM Demand Rate: 0.0966

OIM Factor Accuracy:	84 %	OIM Absolute Variance:	38
OIM Program Accuracy:	72 %	OIM Variance Attributable to Program:	-25
		OIM Variance Attributable to Demand Rate:	-13

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

March 2013

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 570 8885 FJ

IRL Status: Excess

448th Ranking: Initial / Current 1,072 / 1,077

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

MAR12's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

MAR13's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

View in Variance Analysis Worksheet

MAR12's Forecast for (JUN12-MAR13) vs. the (JUN12-MAR13) Reported Value

	JUN12	SEP12	DEC12	MAR13	
Total Forecasted Demand:	13	13	15	15	56
Total Actual Demand:	15	32	29	21	97

MAR13's Forecast for (JUN13-MAR14)

	JUN13	SEP13	DEC13	MAR14	
Total Projected Demand:	6	5	4	3	18

Total Demands if the Forecasted OIM and DLM programs were accurate:	73
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	74
Total Absolute Variance:	41
Variance Attributable to Program:	-20
Variance Attributable to Demand Rates:	-21

Forecasted OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	9	9	11	10	
+ Base NRTS	4	4	4	5	
+ Base Conds	0	0	0	0	
= Base Rep Gens	13	13	15	15	56

Actual OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	11	22	21	16	
+ Base NRTS	4	10	8	5	
+ Base Conds	0	0	0	0	
= Base Rep Gens	15	32	29	21	97

Projected OIM Usage Data:

	JUN13	SEP13	DEC13	MAR14	
Base RTS	4	4	2	2	
+ Base NRTS	2	1	2	1	
+ Base Conds	0	0	0	0	
= Base Rep Gens	6	5	4	3	18

Total Base Rep Gens if the Forecasted OIM Program was accurate:	73
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	74

Forecasted OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
OIM Program (1)	157	157	183	182	679

Forecasted OIM Demand Rate: 0.0825

Actual OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
Past OIM Program	276	249	206	153	884

Actual OIM Demand Rate: 0.1097

Projected OIM Program Data:

	JUN13	SEP13	DEC13	MAR14	
Proj OIM Program	63	47	45	28	183

Projected OIM Demand Rate: 0.0984

OIM Factor Accuracy:	75 %	OIM Absolute Variance:	41
OIM Program Accuracy:	77 %	OIM Variance Attributable to Program:	-20
		OIM Variance Attributable to Demand Rate:	-21

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

June 2013

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 570 8885 FJ

IRL Status: Excess

448th Ranking: Initial / Current 850 / 842

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

JUN12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

JUN13's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

View in Variance Analysis Worksheet

JUN12's Forecast for (SEP12-JUN13) vs. the (SEP12-JUN13) Reported Value

	SEP12	DEC12	MAR13	JUN13	
Total Forecasted Demand:	8	15	15	14	52
Total Actual Demand:	32	29	21	25	107

JUN13's Forecast for (SEP13-JUN14)

	SEP13	DEC13	MAR14	JUN14	
Total Projected Demand:	3	5	3	1	12

Total Demands if the Forecasted OIM and DLM programs were accurate:	59
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	94
Total Absolute Variance:	55
Variance Attributable to Program:	-10
Variance Attributable to Demand Rates:	-45

Forecasted OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	6	10	11	10	
+ Base NRTS	2	5	4	4	
+ Base Conds	0	0	0	0	
= Base Rep Gens	8	15	15	14	52

Actual OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	22	21	16	13	
+ Base NRTS	10	8	5	12	
+ Base Conds	0	0	0	0	
= Base Rep Gens	32	29	21	25	107

Projected OIM Usage Data:

	SEP13	DEC13	MAR14	JUN14	
Base RTS	2	3	2	1	
+ Base NRTS	1	2	1	0	
+ Base Conds	0	0	0	0	
= Base Rep Gens	3	5	3	1	12

Total Base Rep Gens if the Forecasted OIM Program was accurate:	59
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	94

Forecasted OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
OIM Program (1)	105	183	182	182	652

Forecasted OIM Demand Rate: 0.0798

Actual OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
Past OIM Program	249	206	153	131	739

Actual OIM Demand Rate: 0.1448

Projected OIM Program Data:

	SEP13	DEC13	MAR14	JUN14	
Proj OIM Program	25	45	28	12	110

Projected OIM Demand Rate: 0.1091

OIM Factor Accuracy:	55 %	OIM Absolute Variance:	55
OIM Program Accuracy:	88 %	OIM Variance Attributable to Program:	-10
		OIM Variance Attributable to Demand Rate:	-45

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

September 2013

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 570 8885 FJ

IRL Status: Excess

448th Ranking: Initial / Current 913 / 901

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

SEP12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP13's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP12's Forecast for (DEC12-SEP13) vs. the (DEC12-SEP13) Reported Value

	DEC12	MAR13	JUN13	SEP13	
Total Forecasted Demand:	17	15	11	8	51
Total Actual Demand:	29	21	25	17	92

Total Demands if the Forecasted OIM and DLM programs were accurate:	52
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	90
Total Absolute Variance:	41
Variance Attributable to Program:	-1
Variance Attributable to Demand Rates:	-40

SEP13's Forecast for (DEC13-SEP14)

	DEC13	MAR14	JUN14	SEP14	
Total Projected Demand:	5	4	1	0	10

Forecasted OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	12	11	8	5	
+ Base NRTS	5	4	3	3	
+ Base Conds	0	0	0	0	
= Base Rep Gens	17	15	11	8	51

Actual OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	21	16	13	10	
+ Base NRTS	8	5	12	7	
+ Base Conds	0	0	0	0	
= Base Rep Gens	29	21	25	17	92

Total Base Rep Gens if the Forecasted OIM Program was accurate:	52
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	90

Projected OIM Usage Data:

	DEC13	MAR14	JUN14	SEP14	
Base RTS	3	3	1	0	
+ Base NRTS	2	1	0	0	
+ Base Conds	0	0	0	0	
= Base Rep Gens	5	4	1	0	10

Forecasted OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
OIM Program (1)	194	159	127	95	575

Forecasted OIM Demand Rate: 0.0887

Actual OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
Past OIM Program	206	153	131	97	587

Actual OIM Demand Rate: 0.1567

Projected OIM Program Data:

	DEC13	MAR14	JUN14	SEP14	
Proj OIM Program	45	28	12	0	85

Projected OIM Demand Rate: 0.1176

OIM Factor Accuracy:	57 %	OIM Absolute Variance:	41
OIM Program Accuracy:	98 %	OIM Variance Attributable to Program:	-1
		OIM Variance Attributable to Demand Rate:	-40

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

December 2013

Note: 4QMA, 8QMA, & Exp Smoothing forecasts not available prior to Sep03
View 015708885 in Demand Forecast Worksheet

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 570 8885 FJ

IRL Status: Excess

448th Ranking: Initial / Current 1,417 / 1,410

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

DEC12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC13's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC12's Forecast for (MAR13-DEC13) vs. the (MAR13-DEC13) Reported Value

	MAR13	JUN13	SEP13	DEC13	
Total Forecasted Demand:	15	12	9	7	43
Total Actual Demand:	21	25	17	8	71

Total Demands if the Forecasted OIM and DLM programs were accurate:	42
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	72
Total Absolute Variance:	28
Variance Attributable to Program:	1
Variance Attributable to Demand Rates:	-29

DEC13's Forecast for (MAR14-DEC14)

	MAR14	JUN14	SEP14	DEC14	
Total Projected Demand:	3	2	0	0	5

Forecasted OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	11	8	6	5	
+ Base NRTS	4	4	3	2	
+ Base Conds	0	0	0	0	
= Base Rep Gens	15	12	9	7	43

Actual OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	16	13	10	3	
+ Base NRTS	5	12	7	5	
+ Base Conds	0	0	0	0	
= Base Rep Gens	21	25	17	8	71

Total Base Rep Gens if the Forecasted OIM Program was accurate:	42
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	72

Projected OIM Usage Data:

	MAR14	JUN14	SEP14	DEC14	
Base RTS	2	1	0	0	
+ Base NRTS	1	1	0	0	
+ Base Conds	0	0	0	0	
= Base Rep Gens	3	2	0	0	5

Forecasted OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
OIM Program (1)	159	124	93	69	445

Forecasted OIM Demand Rate: 0.0966

Actual OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
Past OIM Program	153	131	97	56	437

Actual OIM Demand Rate: 0.1625

Projected OIM Program Data:

	MAR14	JUN14	SEP14	DEC14	
Proj OIM Program	28	11	0	0	39

Projected OIM Demand Rate: 0.1282

OIM Factor Accuracy:	59 %	OIM Absolute Variance:	28
OIM Program Accuracy:	98 %	OIM Variance Attributable to Program:	1
		OIM Variance Attributable to Demand Rate:	-29

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

Appendix B: MISC Relay Box FACT Plus Data

MISC Relay Box Quarter Demand Variance Lists (Mar 2012 – Dec 2013)

March 2012

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, MAR12 Summary D200A Data Cycle, Updated 26Jun2012
Filtered By: SGM NIIN=015681990
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
DEC11 Forecast for MAR12 vs. MAR12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	2	0	2
Actual Demands:	5	0	5
Absolute Variance:	3	0	3
Demand Forecast Accuracy %:	40%	N/A	40%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	MAR12 ERRC	MAR12 IPSC	MAR12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
4,697	5945	015681990	FJ	416th SCMS	GUMB	AKN	P	1000	AAA	N	N	BUY	2	5	3	4	-1	2	5	3	51%	77%	0	0	0	100%	100%

June 2012

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, JUN12 Summary D200A Data Cycle, Updated 18Sep2012
Filtered By: SGM NIIN=015681990
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
MAR12 Forecast for JUN12 vs. JUN12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	2	0	2
Actual Demands:	3	0	3
Absolute Variance:	1	0	1
Demand Forecast Accuracy %:	67%	N/A	67%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	JUN12 ERRC	JUN12 IPSC	JUN12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
10,845	5945	015681990	FJ	416th SCMS	GUMB	AKN	P	1000	AAA	N	N	BUY	2	3	1	3	-2	2	3	1	79%	55%	0	0	0	100%	100%

September 2012

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, SEP12 Summary D200A Data Cycle, Updated 19Dec2012
Filtered By: SGM NIIN=015681990
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
JUN12 Forecast for SEP12 vs. SEP12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	1	0	1
Actual Demands:	1	0	1
Absolute Variance:	0	0	0
Demand Forecast Accuracy %:	100%	N/A	100%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	SEP12 ERRC	SEP12 IPSC	SEP12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
12,288	5945	015681990	FJ	416th SCMS	GUMB	AKN	P	1000	AAA	N	N	BUY	1	1	0	2	-2	1	1	0	-50%	40%	0	0	0	100%	100%

December 2012

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, DEC12 Summary D200A Data Cycle, Updated 19Mar2013
Filtered By: SGM NIIN=015681990
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
SEP12 Forecast for DEC12 vs. DEC12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	3	0	3
Actual Demands:	2	0	2
Absolute Variance:	1	0	1
Demand Forecast Accuracy %:	50%	N/A	50%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	DEC12 ERRC	DEC12 IPSC	DEC12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
10,233	5945	015681990	FJ	416th SCMS	GUMB	AKN	P	1000	AAA	N	N	BUY	3	2	1	1	0	3	2	1	41%	94%	0	0	0	100%	100%

March 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, MAR13 Summary D200A Data Cycle, Updated 18Jun2013
Filtered By: SGM NIIN=015681990
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
DEC12 Forecast for MAR13 vs. MAR13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	3	0	3
Actual Demands:	17	0	17
Absolute Variance:	14	0	14
Demand Forecast Accuracy %:	18%	N/A	18%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	MAR13 ERRC	MAR13 IPSC	MAR13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,375	5945	015681990	FJ	416th SCMS	GUMB	AKN	P	1000	AAA	N	N	BUY	3	17	14	14	0	3	17	14	16%	96%	0	0	0	100%	100%

June 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, JUN13 Summary D200A Data Cycle, Updated 18Sep2013
Filtered By: SGM NIIN=015681990
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
MAR13 Forecast for JUN13 vs. JUN13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	3	0	3
Actual Demands:	7	0	7
Absolute Variance:	4	0	4
Demand Forecast Accuracy %:	43%	N/A	43%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	JUN13 ERRC	JUN13 IPSC	JUN13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
3.323	5945	015681990	FJ	416th SCMS	GUMB	AKN	P	1000	AAA	N	N	BUY	3	7	4	7	-3	3	7	4	89%	48%	0	0	0	100%	100%

September 2013

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RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, SEP13 Summary D200A Data Cycle, Updated 18Dec2013
Filtered By: SGM NIIN=015681990
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
JUN13 Forecast for SEP13 vs. SEP13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	2	0	2
Actual Demands:	8	0	8
Absolute Variance:	6	0	6
Demand Forecast Accuracy %:	25%	N/A	25%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	SEP13 ERRC	SEP13 IPSC	SEP13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
2.485	5945	015681990	FJ	416th SCMS	GUMB	AKN	P	1000	AAA	N	N	TERM	2	8	6	8	-2	2	8	6	44%	56%	0	0	0	100%	100%

December 2013

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, DEC13 Summary D200A Data Cycle, Updated 18Mar2014
Filtered By: SGM NIIN=015681990
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
SEP13 Forecast for DEC13 vs. DEC13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	2	0	2
Actual Demands:	4	0	4
Absolute Variance:	2	0	2
Demand Forecast Accuracy %:	50%	N/A	50%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	DEC13 ERRC	DEC13 IPSC	DEC13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
5.384	5945	015681990	FJ	416th SCMS	GUMB	AKN	P	1000	AAA	N	N		2	4	2	2	0	2	4	2	61%	81%	0	0	0	100%	100%

MISC Relay Box Item Drill Down Reports (Mar 2012 – Dec 2013)

March 2012

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 568 1990 FJ

IRL Status: Buy

448th Ranking: Initial / Current 4,525 / 4,832

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: AKN
Group: 748th SCMG
Squadron: 416th SCMS IMS: A8F
Flight:

MAR11's Basic
ERRC: P
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

MAR12's Basic
ERRC: P
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

MAR11's Forecast for (JUN11-MAR12) vs. the (JUN11-MAR12) Reported Value

	JUN11	SEP11	DEC11	MAR12	
Total Forecasted Demand:	2	2	2	2	8
Total Actual Demand:	2	2	7	5	16

MAR12's Forecast for (JUN12-MAR13)

	JUN12	SEP12	DEC12	MAR13	
Total Projected Demand:	2	2	2	3	9

Total Demands if the Forecasted OIM and DLM programs were accurate:	8
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	15
Total Absolute Variance:	8
Variance Attributable to Program:	0
Variance Attributable to Demand Rates:	-8

Forecasted OIM Usage Data:

	JUN11	SEP11	DEC11	MAR12	
Base RTS	2	1	2	2	
+ Base NRTS	0	0	0	0	
+ Base Conds	0	1	0	0	
= Base Rep Gens	2	2	2	2	8

Actual OIM Usage Data:

	JUN11	SEP11	DEC11	MAR12	
Base RTS	0	2	2	5	
+ Base NRTS	0	0	0	0	
+ Base Conds	2	0	5	0	
= Base Rep Gens	2	2	7	5	16

Projected OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	1	2	1	2	
+ Base NRTS	0	0	0	0	
+ Base Conds	1	0	1	1	
= Base Rep Gens	2	2	2	3	9

Total Base Rep Gens if the Forecasted OIM Program was accurate:	8
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	15

Forecasted OIM Program Data:

	JUN11	SEP11	DEC11	MAR12	
OIM Program (1)	231	240	251	251	973

Forecasted OIM Demand Rate: 0.0082

Actual OIM Program Data:

	JUN11	SEP11	DEC11	MAR12	
Past OIM Program	283	270	235	225	1,013

Actual OIM Demand Rate: 0.0158

Projected OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
Proj OIM Program	157	157	183	182	679

Projected OIM Demand Rate: 0.0133

OIM Factor Accuracy:	52 %	OIM Absolute Variance:	8
OIM Program Accuracy:	96 %	OIM Variance Attributable to Program:	0
		OIM Variance Attributable to Demand Rate:	-8

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

June 2012

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 568 1990 FJ

IRL Status: Buy

448th Ranking: Initial / Current 4,499 / 4,453

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: AKN
Group: 748th SCMG
Squadron: 416th SCMS IMS: A8F
Flight:

JUN11's Basic Data
ERRC: P
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

JUN12's Basic Data
ERRC: P
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

JUN11's Forecast for (SEP11-JUN12) vs. the (SEP11-JUN12) Reported Value

	SEP11	DEC11	MAR12	JUN12	
Total Forecasted Demand:	2	2	2	2	8
Total Actual Demand:	2	7	5	3	17

JUN12's Forecast for (SEP12-JUN13)

	SEP12	DEC12	MAR13	JUN13	
Total Projected Demand:	1	3	2	2	8

Total Demands if the Forecasted OIM and DLM programs were accurate:	8
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	17
Total Absolute Variance:	9
Variance Attributable to Program:	0
Variance Attributable to Demand Rates:	-9

Forecasted OIM Usage Data:

	SEP11	DEC11	MAR12	JUN12	
Base RTS	2	1	2	1	
+ Base NRTS	0	0	0	0	
+ Base Conds	0	1	0	1	
= Base Rep Gens	2	2	2	2	8

Actual OIM Usage Data:

	SEP11	DEC11	MAR12	JUN12	
Base RTS	2	2	5	3	
+ Base NRTS	0	0	0	0	
+ Base Conds	0	5	0	0	
= Base Rep Gens	2	7	5	3	17

Projected OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	1	2	1	2	
+ Base NRTS	0	0	0	0	
+ Base Conds	0	1	1	0	
= Base Rep Gens	1	3	2	2	8

Total Base Rep Gens if the Forecasted OIM Program was accurate:	8
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	17

Forecasted OIM Program Data:

	SEP11	DEC11	MAR12	JUN12	
OIM Program (1)	238	251	251	251	991

Forecasted OIM Demand Rate: 0.0081

Actual OIM Program Data:

	SEP11	DEC11	MAR12	JUN12	
Past OIM Program	270	235	225	286	1,016

Actual OIM Demand Rate: 0.0167

Projected OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
Proj OIM Program	105	183	182	182	652

Projected OIM Demand Rate: 0.0123

OIM Factor Accuracy:	49 %	OIM Absolute Variance:	9
OIM Program Accuracy:	98 %	OIM Variance Attributable to Program:	0
		OIM Variance Attributable to Demand Rate:	-9

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

September 2012

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 568 1990 FJ

IRL Status: Buy

448th Ranking: Initial / Current 4,236 / 4,167

Management Data:
Wing: 448th SCMW ES: AKN
Group: 748th SCMG
Squadron: 416th SCMS IMS: A8F
Flight:

SEP11's Basic Data
ERRC: P
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP12's Basic Data
ERRC: P
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

View in Variance Analysis Worksheet

SEP11's Forecast for (DEC11-SEP12) vs. the (DEC11-SEP12) Reported Value

	DEC11	MAR12	JUN12	SEP12	
Total Forecasted Demand:	2	1	2	2	7
Total Actual Demand:	7	5	3	1	16

Total Demands if the Forecasted OIM and DLM programs were accurate: 8
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate: 14
Total Absolute Variance: 9
Variance Attributable to Program: -2
Variance Attributable to Demand Rates: -7

SEP12's Forecast for (DEC12-SEP13)

	DEC12	MAR13	JUN13	SEP13	
Total Projected Demand:	3	3	2	3	11

Forecasted OIM Usage Data:

	DEC11	MAR12	JUN12	SEP12	
Base RTS	2	0	2	2	
+ Base NRTS	0	0	0	0	
+ Base Conds	0	1	0	0	
= Base Rep Gens	2	1	2	2	7

Actual OIM Usage Data:

	DEC11	MAR12	JUN12	SEP12	
Base RTS	2	5	3	1	
+ Base NRTS	0	0	0	0	
+ Base Conds	5	0	0	0	
= Base Rep Gens	7	5	3	1	16

Total Base Rep Gens if the Forecasted OIM Program was accurate: 8
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate: 14

Projected OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	2	2	2	2	
+ Base NRTS	0	0	0	0	
+ Base Conds	1	1	0	1	
= Base Rep Gens	3	3	2	3	11

Forecasted OIM Program Data:

	DEC11	MAR12	JUN12	SEP12	
OIM Program (1)	220	220	220	220	880

Forecasted OIM Demand Rate: 0.0080

Actual OIM Program Data:

	DEC11	MAR12	JUN12	SEP12	
Past OIM Program	235	225	287	265	1,012

Actual OIM Demand Rate: 0.0158

Projected OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
Proj OIM Program	231	231	231	231	924

Projected OIM Demand Rate: 0.0119

OIM Factor Accuracy: 51 %
OIM Program Accuracy: 87 %
OIM Absolute Variance: 9
OIM Variance Attributable to Program: -2
OIM Variance Attributable to Demand Rate: -7

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

December 2012

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 568 1990 FJ

IRL Status: Buy

448th Ranking: Initial / Current 7,309 / 7,225

Management Data:
Wing: 448th SCMW ES: AKN
Group: 748th SCMG
Squadron: 416th SCMS IMS: A8F
Flight:

DEC11's Basic Data
ERRC: P
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC12's Basic Data
ERRC: P
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

View in Variance Analysis Worksheet

DEC11's Forecast for (MAR12-DEC12) vs. the (MAR12-DEC12) Reported Value

	MAR12	JUN12	SEP12	DEC12	
Total Forecasted Demand:	2	2	1	2	7
Total Actual Demand:	5	3	1	2	11

Total Demands if the Forecasted OIM and DLM programs were accurate: 10
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate: 7
Total Absolute Variance: 4
Variance Attributable to Program: -3
Variance Attributable to Demand Rates: -1

DEC12's Forecast for (MAR13-DEC13)

	MAR13	JUN13	SEP13	DEC13	
Total Projected Demand:	3	3	3	3	12

Forecasted OIM Usage Data:

	MAR12	JUN12	SEP12	DEC12	
Base RTS	1	1	1	1	
+ Base NRTS	0	0	0	0	
+ Base Conds	1	1	0	1	
= Base Rep Gens	2	2	1	2	7

Actual OIM Usage Data:

	MAR12	JUN12	SEP12	DEC12	
Base RTS	5	3	1	2	
+ Base NRTS	0	0	0	0	
+ Base Conds	0	0	0	0	
= Base Rep Gens	5	3	1	2	11

Total Base Rep Gens if the Forecasted OIM Program was accurate: 10
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate: 7

Projected OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	2	2	3	2	
+ Base NRTS	0	0	0	0	
+ Base Conds	1	1	0	1	
= Base Rep Gens	3	3	3	3	12

Forecasted OIM Program Data:

	MAR12	JUN12	SEP12	DEC12	
OIM Program (1)	174	174	174	167	689

Forecasted OIM Demand Rate: 0.0102

Actual OIM Program Data:

	MAR12	JUN12	SEP12	DEC12	
Past OIM Program	225	287	265	245	1,022

Actual OIM Demand Rate: 0.0108

Projected OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
Proj OIM Program	231	226	226	231	914

Projected OIM Demand Rate: 0.0131

OIM Factor Accuracy: 94 %
OIM Program Accuracy: 67 %
OIM Absolute Variance: 4
OIM Variance Attributable to Program: -3
OIM Variance Attributable to Demand Rate: -1

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

March 2013

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 568 1990 FJ — IRL Status: Buy — 448th Ranking: Initial 3,649 / Current 2,144

Management Data:			MAR12's Basic	MAR13's Basic
Wing:	448th SCMW	ES: AKN	ERRC: P	ERRC: P
Group:	748th SCMG		Item Program Select Code: 1000	Item Program Select Code: 1000
Squadron:	416th SCMS	IMS: A8F	Factor Indicator Code: AAA	Factor Indicator Code: AAA
Flight:			Base RTS Excl Indicator:	Base RTS Excl Indicator:

View in Variance Analysis Worksheet

MAR12's Forecast for (JUN12-MAR13) vs. the (JUN12-MAR13) Reported Value

	JUN12	SEP12	DEC12	MAR13	
Total Forecasted Demand:	2	2	2	3	9
Total Actual Demand:	3	5	3	17	28

Total Demands if the Forecasted OIM and DLM programs were accurate:	14
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	19
Total Absolute Variance:	19
Variance Attributable to Program:	-7
Variance Attributable to Demand Rates:	-12

MAR13's Forecast for (JUN13-MAR14)

	JUN13	SEP13	DEC13	MAR14	
Total Projected Demand:	3	3	3	4	13

Forecasted OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	1	2	1	2	
+ Base NRTS	0	0	0	0	
+ Base Conds	1	0	1	1	
= Base Rep Gens	2	2	2	3	9

Actual OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	3	1	2	10	
+ Base NRTS	0	0	0	0	
+ Base Conds	0	4	1	7	
= Base Rep Gens	3	5	3	17	28

Total Base Rep Gens if the Forecasted OIM Program was accurate:	14
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	19

Projected OIM Usage Data:

	JUN13	SEP13	DEC13	MAR14	
Base RTS	1	2	1	2	
+ Base NRTS	0	0	0	0	
+ Base Conds	2	1	2	2	
= Base Rep Gens	3	3	3	4	13

Forecasted OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
OIM Program (1)	157	157	183	182	679

Forecasted OIM Demand Rate: 0.0133

Actual OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
Past OIM Program	287	265	245	222	1,019

Actual OIM Demand Rate: 0.0275

Projected OIM Program Data:

	JUN13	SEP13	DEC13	MAR14	
Proj OIM Program	115	114	148	149	526

Projected OIM Demand Rate: 0.0247

OIM Factor Accuracy:	48 %	OIM Absolute Variance:	19
OIM Program Accuracy:	67 %	OIM Variance Attributable to Program:	-7
		OIM Variance Attributable to Demand Rate:	-12

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

June 2013

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 568 1990 FJ — IRL Status: Buy — 448th Ranking: Initial 1,819 / Current 1,825

Management Data:			JUN12's Basic Data	JUN13's Basic Data
Wing:	448th SCMW	ES: AKN	ERRC: P	ERRC: P
Group:	748th SCMG		Item Program Select Code: 1000	Item Program Select Code: 1000
Squadron:	416th SCMS	IMS: A8F	Factor Indicator Code: AAA	Factor Indicator Code: AAA
Flight:			Base RTS Excl Indicator:	Base RTS Excl Indicator:

View in Variance Analysis Worksheet

JUN12's Forecast for (SEP12-JUN13) vs. the (SEP12-JUN13) Reported Value

	SEP12	DEC12	MAR13	JUN13	
Total Forecasted Demand:	1	3	2	2	8
Total Actual Demand:	5	3	17	7	32

Total Demands if the Forecasted OIM and DLM programs were accurate:	12
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	22
Total Absolute Variance:	24
Variance Attributable to Program:	-7
Variance Attributable to Demand Rates:	-17

JUN13's Forecast for (SEP13-JUN14)

	SEP13	DEC13	MAR14	JUN14	
Total Projected Demand:	2	4	4	4	14

Forecasted OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	1	2	1	2	
+ Base NRTS	0	0	0	0	
+ Base Conds	0	1	1	0	
= Base Rep Gens	1	3	2	2	8

Actual OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	1	2	10	4	
+ Base NRTS	0	0	0	0	
+ Base Conds	4	1	7	3	
= Base Rep Gens	5	3	17	7	32

Total Base Rep Gens if the Forecasted OIM Program was accurate:	12
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	22

Projected OIM Usage Data:

	SEP13	DEC13	MAR14	JUN14	
Base RTS	1	2	2	2	
+ Base NRTS	0	0	0	0	
+ Base Conds	1	2	2	2	
= Base Rep Gens	2	4	4	4	14

Forecasted OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
OIM Program (1)	105	183	182	182	652

Forecasted OIM Demand Rate: 0.0123

Actual OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
Past OIM Program	265	245	222	239	971

Actual OIM Demand Rate: 0.0330

Projected OIM Program Data:

	SEP13	DEC13	MAR14	JUN14	
Proj OIM Program	61	148	149	148	506

Projected OIM Demand Rate: 0.0277

OIM Factor Accuracy:	37 %	OIM Absolute Variance:	24
OIM Program Accuracy:	67 %	OIM Variance Attributable to Program:	-7
		OIM Variance Attributable to Demand Rate:	-17

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

September 2013

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 568 1990 FJ

IRL Status: Term

448th Ranking: Initial 1,587 / Current 1,560

View in Variance Analysis Worksheet

Management Data:			SEP12's Basic Data	SEP13's Basic Data
Wing:	448th SCMW	ES: AKN	ERRC: P	ERRC: P
Group:	748th SCMG		Item Program Select Code: 1000	Item Program Select Code: 1000
Squadron:	416th SCMS	IMS: A8F	Factor Indicator Code: AAA	Factor Indicator Code: AAA
Flight:			Base RTS Excl Indicator:	Base RTS Excl Indicator:

SEP12's Forecast for (DEC12-SEP13) vs. the (DEC12-SEP13) Reported Value

	DEC12	MAR13	JUN13	SEP13	
Total Forecasted Demand:	3	3	2	3	11
Total Actual Demand:	3	17	7	8	35

Total Demands if the Forecasted OIM and DLM programs were accurate:	7
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	55
Total Absolute Variance:	24
Variance Attributable to Program:	12
Variance Attributable to Demand Rates:	-36

SEP13's Forecast for (DEC13-SEP14)

	DEC13	MAR14	JUN14	SEP14	
Total Projected Demand:	2	1	1	0	4

Forecasted OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	2	2	2	2	
+ Base NRTS	0	0	0	0	
+ Base Conds	1	1	0	1	
= Base Rep Gens	3	3	2	3	11

Actual OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	2	10	4	6	
+ Base NRTS	0	0	0	0	
+ Base Conds	1	7	3	2	
= Base Rep Gens	3	17	7	8	35

Total Base Rep Gens if the Forecasted OIM Program was accurate:	7
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	55

Projected OIM Usage Data:

	DEC13	MAR14	JUN14	SEP14	
Base RTS	1	1	0	0	
+ Base NRTS	0	0	0	0	
+ Base Conds	1	0	1	0	
= Base Rep Gens	2	1	1	0	4

Forecasted OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
OIM Program (1)	231	231	231	231	924

Forecasted OIM Demand Rate: 0.0119

Actual OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
Past OIM Program	201	151	131	109	592

Actual OIM Demand Rate: 0.0591

Projected OIM Program Data:

	DEC13	MAR14	JUN14	SEP14	
Proj OIM Program	51	30	15	0	96

Projected OIM Demand Rate: 0.0417

OIM Factor Accuracy:	20 %	OIM Absolute Variance:	24
OIM Program Accuracy:	64 %	OIM Variance Attributable to Program:	12
		OIM Variance Attributable to Demand Rate:	-36

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

December 2013

Detailed Item Forecast and Demand Data for SGM NSN: 5945 01 568 1990 FJ

IRL Status: N/A

448th Ranking: Initial 1,632 / Current 1,636

View in Variance Analysis Worksheet

Management Data:			DEC12's Basic Data	DEC13's Basic Data
Wing:	448th SCMW	ES: AKN	ERRC: P	ERRC: P
Group:	748th SCMG		Item Program Select Code: 1000	Item Program Select Code: 1000
Squadron:	416th SCMS	IMS: A8F	Factor Indicator Code: AAA	Factor Indicator Code: AAA
Flight:			Base RTS Excl Indicator:	Base RTS Excl Indicator:

DEC12's Forecast for (MAR13-DEC13) vs. the (MAR13-DEC13) Reported Value

	MAR13	JUN13	SEP13	DEC13	
Total Forecasted Demand:	3	3	3	3	12
Total Actual Demand:	17	7	8	4	36

Total Demands if the Forecasted OIM and DLM programs were accurate:	6
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	72
Total Absolute Variance:	24
Variance Attributable to Program:	21
Variance Attributable to Demand Rates:	-45

DEC13's Forecast for (MAR14-DEC14)

	MAR14	JUN14	SEP14	DEC14	
Total Projected Demand:	1	1	0	0	2

Forecasted OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	2	2	3	2	
+ Base NRTS	0	0	0	0	
+ Base Conds	1	1	0	1	
= Base Rep Gens	3	3	3	3	12

Actual OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	10	4	6	4	
+ Base NRTS	0	0	0	0	
+ Base Conds	7	3	2	0	
= Base Rep Gens	17	7	8	4	36

Total Base Rep Gens if the Forecasted OIM Program was accurate:	6
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	72

Projected OIM Usage Data:

	MAR14	JUN14	SEP14	DEC14	
Base RTS	1	0	0	0	
+ Base NRTS	0	0	0	0	
+ Base Conds	0	1	0	0	
= Base Rep Gens	1	1	0	0	2

Forecasted OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
OIM Program (1)	231	226	226	231	914

Forecasted OIM Demand Rate: 0.0131

Actual OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
Past OIM Program	151	131	109	63	454

Actual OIM Demand Rate: 0.0793

Projected OIM Program Data:

	MAR14	JUN14	SEP14	DEC14	
Proj OIM Program	30	14	0	0	44

Projected OIM Demand Rate: 0.0455

OIM Factor Accuracy:	17 %	OIM Absolute Variance:	24
OIM Program Accuracy:	50 %	OIM Variance Attributable to Program:	21
		OIM Variance Attributable to Demand Rate:	-45

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

Appendix C: Fuel & Engine Relay Box (FERB) FACT Plus Data

Fuel & Engine Relay Box Quarter Demand Variance Lists (Mar 2012 – Dec 2013)

March 2012

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, MAR12 Summary D200A Data Cycle, Updated 26Jun2012
Filtered By: SGM NIIN=015706859
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
DEC11 Forecast for MAR12 vs. MAR12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	10	0	10
Actual Demands:	27	0	27
Absolute Variance:	17	0	17
Demand Forecast Accuracy %:	37%	N/A	37%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	MAR12 ERRC	MAR12 IPSC	MAR12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
869	6110	015706859	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	10	27	17	20	-3	10	27	17	47%	77%	0	0	0	100%	100%

June 2012

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, JUN12 Summary D200A Data Cycle, Updated 18Sep2012
Filtered By: SGM NIIN=015706859
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
MAR12 Forecast for JUN12 vs. JUN12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	11	0	11
Actual Demands:	14	0	14
Absolute Variance:	3	0	3
Demand Forecast Accuracy %:	79%	N/A	79%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	JUN12 ERRC	JUN12 IPSC	JUN12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
4,850	6110	015706859	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	11	14	3	12	-9	11	14	3	56%	55%	0	0	0	100%	100%

September 2012

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, SEP12 Summary D200A Data Cycle, Updated 19Dec2012
Filtered By: SGM NIIN=015706859
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
JUN12 Forecast for SEP12 vs. SEP12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	6	0	6
Actual Demands:	19	0	19
Absolute Variance:	13	0	13
Demand Forecast Accuracy %:	32%	N/A	32%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	SEP12 ERRC	SEP12 IPSC	SEP12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,448	6110	015706859	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	6	19	13	22	-9	6	19	13	79%	40%	0	0	0	100%	100%

December 2012

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, DEC12 Summary D200A Data Cycle, Updated 19Mar2013
Filtered By: SGM NIIN=015706859
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
SEP12 Forecast for DEC12 vs. DEC12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	15	0	15
Actual Demands:	21	2	23
Absolute Variance:	6	2	8
Demand Forecast Accuracy %:	71%	0%	65%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	DEC12 ERRC	DEC12 IPSC	DEC12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,977	6110	015706859	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	15	23	8	9	-1	15	21	6	73%	94%	0	2	2	100%	100%

March 2013

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, MAR13 Summary D200A Data Cycle, Updated 18Jun2013
Filtered By: SGM NIIN=015706859
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
DEC12 Forecast for MAR13 vs. MAR13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	19	0	19
Actual Demands:	18	1	19
Absolute Variance:	1	1	0
Demand Forecast Accuracy %:	94%	0%	89%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	MAR13 ERRC	MAR13 IPSC	MAR13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
4,439	6110	015706859	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	BUY	19	19	0	-1	1	19	18	1	98%	96%	0	1	1	100%	100%

June 2013

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, JUN13 Summary D200A Data Cycle, Updated 18Sep2013
Filtered By: SGM NIIN=015706859
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
MAR13 Forecast for JUN13 vs. JUN13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	9	0	9
Actual Demands:	17	1	18
Absolute Variance:	8	1	9
Demand Forecast Accuracy %:	53%	0%	50%

448th Ranking (I)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	JUN13 ERRC	JUN13 IPSC	JUN13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,897	6110	015706859	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	BUY	9	18	9	19	-10	9	17	8	89%	48%	0	1	1	100%	100%

September 2013

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, SEP13 Summary D200A Data Cycle, Updated 18Dec2013
Filtered By: SGM NIIN=015706859
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
JUN13 Forecast for SEP13 vs. SEP13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	3	0	3
Actual Demands:	23	0	23
Absolute Variance:	18	0	18
Demand Forecast Accuracy %:	22%	N/A	22%

448th Ranking (I)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	SEP13 ERRC	SEP13 IPSC	SEP13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
965	6110	015706859	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	3	23	18	33	-15	3	23	18	84%	26%	0	0	0	100%	100%

December 2013

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, DEC13 Summary D200A Data Cycle, Updated 18Mar2014
Filtered By: SGM NIIN=015706859
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
SEP13 Forecast for DEC13 vs. DEC13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	15	0	15
Actual Demands:	14	0	14
Absolute Variance:	1	0	1
Demand Forecast Accuracy %:	93%	N/A	93%

448th Ranking (I)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	DEC13 ERRC	DEC13 IPSC	DEC13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
9,473	6110	015706859	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	15	14	1	5	-4	15	14	1	66%	80%	0	0	0	100%	100%

Fuel & Engine Relay Box Item Drill Down Reports (Mar 2012 – Dec 2013)

March 2012

Detailed Item Forecast and Demand Data for SGM NSN: 6110 01 570 6859 FJ

IRL Status: Repair

448th Ranking: Initial 1,529 / Current 1,683

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

MAR11's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

MAR12's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

MAR11's Forecast for (JUN11-MAR12) vs. the (JUN11-MAR12) Reported Value

	JUN11	SEP11	DEC11	MAR12	
Total Forecasted Demand:	8	9	9	9	35
Total Actual Demand:	11	9	17	27	64

MAR12's Forecast for (JUN12-MAR13)

	JUN12	SEP12	DEC12	MAR13	
Total Projected Demand:	11	10	12	12	45

Total Demands if the Forecasted OIM and DLM programs were accurate:	73
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	31
Total Absolute Variance:	29
Variance Attributable to Program:	-36
Variance Attributable to Demand Rates:	7

Forecasted OIM Usage Data:

	JUN11	SEP11	DEC11	MAR12	
Base RTS	5	6	5	6	
+ Base NRTS	3	3	4	3	
+ Base Conds	0	0	0	0	
= Base Rep Gens	8	9	9	9	35

Actual OIM Usage Data:

	JUN11	SEP11	DEC11	MAR12	
Base RTS	4	8	12	20	
+ Base NRTS	7	1	5	7	
+ Base Conds	0	0	0	0	
= Base Rep Gens	11	9	17	27	64

Projected OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	7	7	8	9	
+ Base NRTS	4	3	4	3	
+ Base Conds	0	0	0	0	
= Base Rep Gens	11	10	12	12	45

Total Base Rep Gens if the Forecasted OIM Program was accurate:	73
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	31

Forecasted OIM Program Data:

	JUN11	SEP11	DEC11	MAR12	
OIM Program (1)	115	120	125	125	485

Forecasted OIM Demand Rate: 0.0722

Actual OIM Program Data:

	JUN11	SEP11	DEC11	MAR12	
Past OIM Program	283	270	235	225	1,013

Actual OIM Demand Rate: 0.0632

Projected OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
Proj OIM Program	157	157	183	182	679

Projected OIM Demand Rate: 0.0663

OIM Factor Accuracy:	88 %	OIM Absolute Variance:	29
OIM Program Accuracy:	48 %	OIM Variance Attributable to Program:	-36
		OIM Variance Attributable to Demand Rate:	7

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

June 2012

Detailed Item Forecast and Demand Data for SGM NSN: 6110 01 570 6859 FJ

IRL Status: Repair

448th Ranking: Initial 7,507 / Current 7,436

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

JUN11's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

JUN12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

JUN11's Forecast for (SEP11-JUN12) vs. the (SEP11-JUN12) Reported Value

	SEP11	DEC11	MAR12	JUN12	
Total Forecasted Demand:	15	16	16	16	63
Total Actual Demand:	9	17	27	14	67

JUN12's Forecast for (SEP12-JUN13)

	SEP12	DEC12	MAR13	JUN13	
Total Projected Demand:	6	12	11	11	40

Total Demands if the Forecasted OIM and DLM programs were accurate:	65
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	65
Total Absolute Variance:	4
Variance Attributable to Program:	-2
Variance Attributable to Demand Rates:	-2

Forecasted OIM Usage Data:

	SEP11	DEC11	MAR12	JUN12	
Base RTS	9	10	10	10	
+ Base NRTS	6	6	6	6	
+ Base Conds	0	0	0	0	
= Base Rep Gens	15	16	16	16	63

Actual OIM Usage Data:

	SEP11	DEC11	MAR12	JUN12	
Base RTS	8	12	20	9	
+ Base NRTS	1	5	7	5	
+ Base Conds	0	0	0	0	
= Base Rep Gens	9	17	27	14	67

Projected OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	4	8	7	8	
+ Base NRTS	2	4	4	3	
+ Base Conds	0	0	0	0	
= Base Rep Gens	6	12	11	11	40

Total Base Rep Gens if the Forecasted OIM Program was accurate:	65
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	65

Forecasted OIM Program Data:

	SEP11	DEC11	MAR12	JUN12	
OIM Program (1)	238	251	251	251	991

Forecasted OIM Demand Rate: 0.0636

Actual OIM Program Data:

	SEP11	DEC11	MAR12	JUN12	
Past OIM Program	270	235	225	286	1,016

Actual OIM Demand Rate: 0.0659

Projected OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
Proj OIM Program	105	183	182	182	652

Projected OIM Demand Rate: 0.0613

OIM Factor Accuracy:	97 %	OIM Absolute Variance:	4
OIM Program Accuracy:	98 %	OIM Variance Attributable to Program:	-2
		OIM Variance Attributable to Demand Rate:	-2

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

September 2012

Detailed Item Forecast and Demand Data for SGM NSN: 6110 01 570 6859 FJ

IRL Status: Repair

448th Ranking: Initial 1,602 / Current 1,576

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

SEP11's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

View in Variance Analysis Worksheet

SEP11's Forecast for (DEC11-SEP12) vs. the (DEC11-SEP12) Reported Value

	DEC11	MAR12	JUN12	SEP12	
Total Forecasted Demand:	13	12	13	12	50
Total Actual Demand:	17	27	14	19	77

Total Demands if the Forecasted OIM and DLM programs were accurate:	57
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	67
Total Absolute Variance:	27
Variance Attributable to Program:	-9
Variance Attributable to Demand Rates:	-18

SEP12's Forecast for (DEC12-SEP13)

	DEC12	MAR13	JUN13	SEP13	
Total Projected Demand:	15	14	15	14	58

Forecasted OIM Usage Data:

	DEC11	MAR12	JUN12	SEP12	
Base RTS	8	8	9	8	
+ Base NRTS	5	4	4	4	
+ Base Conds	0	0	0	0	
= Base Rep Gens	13	12	13	12	50

Actual OIM Usage Data:

	DEC11	MAR12	JUN12	SEP12	
Base RTS	12	20	9	15	
+ Base NRTS	5	7	5	4	
+ Base Conds	0	0	0	0	
= Base Rep Gens	17	27	14	19	77

Projected OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	10	9	10	10	
+ Base NRTS	5	5	5	4	
+ Base Conds	0	0	0	0	
= Base Rep Gens	15	14	15	14	58

Total Base Rep Gens if the Forecasted OIM Program was accurate:	57
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	67

Forecasted OIM Program Data:

	DEC11	MAR12	JUN12	SEP12	
OIM Program (1)	220	220	220	220	880

Forecasted OIM Demand Rate: 0.0568

Actual OIM Program Data:

	DEC11	MAR12	JUN12	SEP12	
Past OIM Program	235	225	287	265	1,012

Actual OIM Demand Rate: 0.0761

Projected OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
Proj OIM Program	231	231	231	231	924

Projected OIM Demand Rate: 0.0628

OIM Factor Accuracy:	75 %	OIM Absolute Variance:	27
OIM Program Accuracy:	87 %	OIM Variance Attributable to Program:	-9
		OIM Variance Attributable to Demand Rate:	-18

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

December 2012

Detailed Item Forecast and Demand Data for SGM NSN: 6110 01 570 6859 FJ

IRL Status: Repair

448th Ranking: Initial 1,605 / Current 640

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

DEC11's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

View in Variance Analysis Worksheet

DEC11's Forecast for (MAR12-DEC12) vs. the (MAR12-DEC12) Reported Value

	MAR12	JUN12	SEP12	DEC12	
Total Forecasted Demand:	10	10	11	9	40
Total Actual Demand:	35	22	28	23	108

Total Demands if the Forecasted OIM and DLM programs were accurate:	59
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	71
Total Absolute Variance:	68
Variance Attributable to Program:	-27
Variance Attributable to Demand Rates:	-39

DEC12's Forecast for (MAR13-DEC13)

	MAR13	JUN13	SEP13	DEC13	
Total Projected Demand:	19	19	19	19	76

Forecasted OIM Usage Data:

	MAR12	JUN12	SEP12	DEC12	
Base RTS	7	7	7	7	
+ Base NRTS	3	3	4	2	
+ Base Conds	0	0	0	0	
= Base Rep Gens	10	10	11	9	40

Actual OIM Usage Data:

	MAR12	JUN12	SEP12	DEC12	
Base RTS	27	16	21	17	
+ Base NRTS	8	6	7	4	
+ Base Conds	0	0	0	0	
= Base Rep Gens	35	22	28	21	106

Projected OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	13	14	13	14	
+ Base NRTS	6	5	6	5	
+ Base Conds	0	0	0	0	
= Base Rep Gens	19	19	19	19	76

Total Base Rep Gens if the Forecasted OIM Program was accurate:	59
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	71

Forecasted OIM Program Data:

	MAR12	JUN12	SEP12	DEC12	
OIM Program (1)	174	174	174	167	689

Forecasted OIM Demand Rate: 0.0581

Actual OIM Program Data:

	MAR12	JUN12	SEP12	DEC12	
Past OIM Program	225	287	265	245	1,022

Actual OIM Demand Rate: 0.1037

Projected OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
Proj OIM Program	231	226	226	231	914

Projected OIM Demand Rate: 0.0832

OIM Factor Accuracy:	56 %	OIM Absolute Variance:	66
OIM Program Accuracy:	67 %	OIM Variance Attributable to Program:	-27
		OIM Variance Attributable to Demand Rate:	-39

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

March 2013

Detailed Item Forecast and Demand Data for SGM NSN: 6110 01 570 6859 FJ

IRL Status: Buy

448th Ranking: Initial / Current 1,007 957

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

MAR12's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

MAR13's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

View in Variance Analysis Worksheet

MAR12's Forecast for (JUN12-MAR13) vs. the (JUN12-MAR13) Reported Value

	JUN12	SEP12	DEC12	MAR13	
Total Forecasted Demand:	11	10	12	12	45

	JUN12	SEP12	DEC12	MAR13	
Total Actual Demand:	22	28	23	19	92

MAR13's Forecast for (JUN13-MAR14)

	JUN13	SEP13	DEC13	MAR14	
Total Projected Demand:	9	10	12	12	43

Total Demands if the Forecasted OIM and DLM programs were accurate:	68
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	59
Total Absolute Variance:	47
Variance Attributable to Program:	-26
Variance Attributable to Demand Rates:	-18

Forecasted OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	7	7	8	9	
+ Base NRTS	4	3	4	3	
+ Base Conds	0	0	0	0	
= Base Rep Gens	11	10	12	12	45

Actual OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	16	21	17	15	
+ Base NRTS	6	7	4	3	
+ Base Conds	0	0	0	0	
= Base Rep Gens	22	28	21	18	89

Projected OIM Usage Data:

	JUN13	SEP13	DEC13	MAR14	
Base RTS	7	7	9	9	
+ Base NRTS	2	3	3	3	
+ Base Conds	0	0	0	0	
= Base Rep Gens	9	10	12	12	43

Total Base Rep Gens if the Forecasted OIM Program was accurate:	68
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	59

Forecasted OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
OIM Program (1)	157	157	183	182	679

Forecasted OIM Demand Rate: 0.0663

Actual OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
Past OIM Program	287	265	245	222	1,019

Actual OIM Demand Rate: 0.0873

Projected OIM Program Data:

	JUN13	SEP13	DEC13	MAR14	
Proj OIM Program	115	114	148	149	526

Projected OIM Demand Rate: 0.0817

OIM Factor Accuracy:	76 %	OIM Absolute Variance:	44
OIM Program Accuracy:	67 %	OIM Variance Attributable to Program:	-26
		OIM Variance Attributable to Demand Rate:	-18

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

June 2013

Detailed Item Forecast and Demand Data for SGM NSN: 6110 01 570 6859 FJ

IRL Status: Buy

448th Ranking: Initial / Current 991 954

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

JUN12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

JUN13's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

View in Variance Analysis Worksheet

JUN12's Forecast for (SEP12-JUN13) vs. the (SEP12-JUN13) Reported Value

	SEP12	DEC12	MAR13	JUN13	
Total Forecasted Demand:	6	12	11	11	40

	SEP12	DEC12	MAR13	JUN13	
Total Actual Demand:	28	23	19	18	88

JUN13's Forecast for (SEP13-JUN14)

	SEP13	DEC13	MAR14	JUN14	
Total Projected Demand:	5	13	13	13	44

Total Demands if the Forecasted OIM and DLM programs were accurate:	60
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	56
Total Absolute Variance:	48
Variance Attributable to Program:	-24
Variance Attributable to Demand Rates:	-20

Forecasted OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	4	8	7	8	
+ Base NRTS	2	4	4	3	
+ Base Conds	0	0	0	0	
= Base Rep Gens	6	12	11	11	40

Actual OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	21	17	15	9	
+ Base NRTS	7	4	3	8	
+ Base Conds	0	0	0	0	
= Base Rep Gens	28	21	18	17	84

Projected OIM Usage Data:

	SEP13	DEC13	MAR14	JUN14
Base RTS	4	9	10	10
+ Base NRTS	1	4	3	3
+ Base Conds	0	0	0	0
= Base Rep Gens	5	13	13	13

Total Base Rep Gens if the Forecasted OIM Program was accurate:	60
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	56

Forecasted OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
OIM Program (1)	105	183	182	182	652

Forecasted OIM Demand Rate: 0.0613

Actual OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
Past OIM Program	265	245	222	239	971

Actual OIM Demand Rate: 0.0865

Projected OIM Program Data:

	SEP13	DEC13	MAR14	JUN14	
Proj OIM Program	61	148	149	148	506

Projected OIM Demand Rate: 0.0870

OIM Factor Accuracy:	71 %	OIM Absolute Variance:	44
OIM Program Accuracy:	67 %	OIM Variance Attributable to Program:	-24
		OIM Variance Attributable to Demand Rate:	-20

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

September 2013

Detailed Item Forecast and Demand Data for SGM NSN: 6110 01 570 6859 FJ

IRL Status: Repair

448th Ranking: Initial / Current
1,588 / 1,431

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

SEP12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP13's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP12's Forecast for (DEC12-SEP13) vs. the (DEC12-SEP13) Reported Value

	DEC12	MAR13	JUN13	SEP13	
Total Forecasted Demand:	15	14	15	14	58
Total Actual Demand:	23	19	19	23	84

Total Demands if the Forecasted OIM and DLM programs were accurate:	59
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	82
Total Absolute Variance:	26
Variance Attributable to Program:	-2
Variance Attributable to Demand Rates:	-24

SEP13's Forecast for (DEC13-SEP14)

	DEC13	MAR14	JUN14	SEP14	
Total Projected Demand:	15	14	14	15	58

Forecasted OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	10	9	10	10	
+ Base NRTS	5	5	5	4	
+ Base Conds	0	0	0	0	
= Base Rep Gens	15	14	15	14	58

Actual OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	17	15	9	17	
+ Base NRTS	6	4	10	6	
+ Base Conds	0	0	0	0	
= Base Rep Gens	23	19	19	23	84

Total Base Rep Gens if the Forecasted OIM Program was accurate:	59
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	82

Projected OIM Usage Data:

	DEC13	MAR14	JUN14	SEP14	
Base RTS	11	10	10	11	
+ Base NRTS	4	4	4	4	
+ Base Conds	0	0	0	0	
= Base Rep Gens	15	14	14	15	58

Forecasted OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
OIM Program (1)	231	231	231	231	924

Forecasted OIM Demand Rate: 0.0628

Actual OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
Past OIM Program	245	222	239	238	944

Actual OIM Demand Rate: 0.0890

Projected OIM Program Data:

	DEC13	MAR14	JUN14	SEP14	
Proj OIM Program	149	148	148	148	593

Projected OIM Demand Rate: 0.0978

OIM Factor Accuracy:	71 %
OIM Program Accuracy:	98 %
OIM Absolute Variance:	26
OIM Variance Attributable to Program:	-2
OIM Variance Attributable to Demand Rate:	-24

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

December 2013

Detailed Item Forecast and Demand Data for SGM NSN: 6110 01 570 6859 FJ

IRL Status: Repair

448th Ranking: Initial / Current
12,900 / 12,606

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

DEC12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC13's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC12's Forecast for (MAR13-DEC13) vs. the (MAR13-DEC13) Reported Value

	MAR13	JUN13	SEP13	DEC13	
Total Forecasted Demand:	19	19	19	19	76
Total Actual Demand:	19	19	23	14	75

Total Demands if the Forecasted OIM and DLM programs were accurate:	74
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	77
Total Absolute Variance:	1
Variance Attributable to Program:	2
Variance Attributable to Demand Rates:	-1

DEC13's Forecast for (MAR14-DEC14)

	MAR14	JUN14	SEP14	DEC14	
Total Projected Demand:	14	13	13	9	49

Forecasted OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	13	14	13	14	
+ Base NRTS	6	5	6	5	
+ Base Conds	0	0	0	0	
= Base Rep Gens	19	19	19	19	76

Actual OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	15	9	17	10	
+ Base NRTS	4	10	6	4	
+ Base Conds	0	0	0	0	
= Base Rep Gens	19	19	23	14	75

Total Base Rep Gens if the Forecasted OIM Program was accurate:	74
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	77

Projected OIM Usage Data:

	MAR14	JUN14	SEP14	DEC14	
Base RTS	10	9	10	6	
+ Base NRTS	4	4	3	3	
+ Base Conds	0	0	0	0	
= Base Rep Gens	14	13	13	9	49

Forecasted OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
OIM Program (1)	231	226	226	231	914

Forecasted OIM Demand Rate: 0.0832

Actual OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
Past OIM Program	222	239	238	186	885

Actual OIM Demand Rate: 0.0847

Projected OIM Program Data:

	MAR14	JUN14	SEP14	DEC14	
Proj OIM Program	148	136	136	86	506

Projected OIM Demand Rate: 0.0968

OIM Factor Accuracy:	98 %
OIM Program Accuracy:	97 %
OIM Absolute Variance:	1
OIM Variance Attributable to Program:	2
OIM Variance Attributable to Demand Rate:	-1

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

Appendix D: Multi-function Color Display (MFCD) FACT Plus Data

MFCD Quarter Demand Variance Lists (Mar 2012 – Dec 2013)

March 2012

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, MAR12 Summary D200A Data Cycle, Updated 26Jun2012
Filtered By: SGM NIIN=015439004
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
DEC11 Forecast for MAR12 vs. MAR12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	9	0	9
Actual Demands:	38	0	38
Absolute Variance:	29	0	29
Demand Forecast Accuracy %:	24%	N/A	24%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	MAR12 ERRC	MAR12 IPSC	MAR12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
503	1260	015439004	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	9	38	29	32	-3	9	38	29	30%	78%	0	0	0	100%	100%

June 2012

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, JUN12 Summary D200A Data Cycle, Updated 18Sep2012
Filtered By: SGM NIIN=015439004
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
MAR12 Forecast for JUN12 vs. JUN12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	10	0	10
Actual Demands:	23	0	23
Absolute Variance:	13	0	13
Demand Forecast Accuracy %:	43%	N/A	43%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	JUN12 ERRC	JUN12 IPSC	JUN12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,302	1260	015439004	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	10	23	13	21	-8	10	23	13	79%	55%	0	0	0	100%	100%

September 2012

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RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, SEP12 Summary D200A Data Cycle, Updated 19Dec2012
Filtered By: SGM NIIN=015439004
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
JUN12 Forecast for SEP12 vs. SEP12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	7	0	7
Actual Demands:	31	0	31
Absolute Variance:	24	0	24
Demand Forecast Accuracy %:	23%	N/A	23%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	SEP12 ERRC	SEP12 IPSC	SEP12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
782	1260	015439004	FJ	416th SCMS	GUMB	KKP	T	1000	CAA	N	N	REPAIR	7	31	24	35	-11	7	31	24	57%	40%	0	0	0	100%	100%

December 2012

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, DEC12 Summary D200A Data Cycle, Updated 19Mar2013
Filtered By: SGM NIIN=015439004
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
SEP12 Forecast for DEC12 vs. DEC12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	23	0	23
Actual Demands:	27	0	27
Absolute Variance:	4	0	4
Demand Forecast Accuracy %:	85%	N/A	85%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	DEC12 ERRC	DEC12 IPSC	DEC12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
2,404	1260	015439004	FJ	416th SCMS	GUMB	KKP	T	1000	CAA	N	N	REPAIR	23	27	4	3	-1	23	27	4	90%	94%	0	0	0	100%	100%

March 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, MAR13 Summary D200A Data Cycle, Updated 18Jun2013
Filtered By: SGM NIIN=015439004
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
DEC12 Forecast for MAR13 vs. MAR13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	27	0	27
Actual Demands:	18	0	18
Absolute Variance:	9	0	9
Demand Forecast Accuracy %:	50%	N/A	50%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	MAR13 ERRC	MAR13 IPSC	MAR13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,553	1260	015439004	FJ	416th SCMS	GUMB	KKP	T	1000	CAA	N	N	REPAIR	27	18	9	8	1	27	18	9	56%	96%	0	0	0	100%	100%

June 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, JUN13 Summary D200A Data Cycle, Updated 18Sep2013
Filtered By: SGM NIIN=015439004
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
MAR13 Forecast for JUN13 vs. JUN13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	11	0	11
Actual Demands:	25	0	25
Absolute Variance:	14	0	14
Demand Forecast Accuracy %:	44%	N/A	44%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	JUN13 ERRC	JUN13 IPSC	JUN13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
902	1260	015439004	FJ	416th SCMS	GUMB	KKP	T	1000	CAA	N	Y	REPAIR	11	25	14	26	-12	11	25	14	91%	48%	0	0	0	100%	100%

September 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, SEP13 Summary D200A Data Cycle, Updated 18Dec2013
Filtered By: SGM NIIN=015439004
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
JUN13 Forecast for SEP13 vs. SEP13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	6	0	6
Actual Demands:	17	0	17
Absolute Variance:	11	0	11
Demand Forecast Accuracy %:	35%	N/A	35%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	SEP13 ERRC	SEP13 IPSC	SEP13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,385	1260	015439004	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	6	17	11	28	-17	6	17	11	62%	26%	0	0	0	100%	100%

December 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, DEC13 Summary D200A Data Cycle, Updated 18Mar2014
Filtered By: SGM NIIN=015439004
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
SEP13 Forecast for DEC13 vs. DEC13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	14	0	14
Actual Demands:	21	0	21
Absolute Variance:	7	0	7
Demand Forecast Accuracy %:	67%	N/A	67%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	DEC13 ERRC	DEC13 IPSC	DEC13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,604	1260	015439004	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	14	21	7	11	-4	14	21	7	83%	80%	0	0	0	100%	100%

MFCD Item Drill Down Reports (Mar 2012 – Dec 2013)

March 2012

Detailed Item Forecast and Demand Data for SGM NSN: 1260 01 543 9004 FJ

IRL Status: Repair

448th Ranking: Initial 3,595 / Current 3,862

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

MAR11's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: DDD
Base RTS Excl Indicator:

MAR12's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

MAR11's Forecast for (JUN11-MAR12) vs. the (JUN11-MAR12) Reported Value

	JUN11	SEP11	DEC11	MAR12	
Total Forecasted Demand:	17	17	18	18	70
Total Actual Demand:	13	1	7	38	59

Total Demands if the Forecasted OIM and DLM programs were accurate:	73
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	57
Total Absolute Variance:	11
Variance Attributable to Program:	-3
Variance Attributable to Demand Rates:	13

MAR12's Forecast for (JUN12-MAR13)

	JUN12	SEP12	DEC12	MAR13	
Total Projected Demand:	10	10	12	12	44

Forecasted OIM Usage Data:

	JUN11	SEP11	DEC11	MAR12	
Base RTS	0	0	1	0	
+ Base NRTS	17	17	17	18	
+ Base Conds	0	0	0	0	
= Base Rep Gens	17	17	18	18	70

Actual OIM Usage Data:

	JUN11	SEP11	DEC11	MAR12	
Base RTS	1	1	0	10	
+ Base NRTS	12	0	7	28	
+ Base Conds	0	0	0	0	
= Base Rep Gens	13	1	7	38	59

Total Base Rep Gens if the Forecasted OIM Program was accurate:	73
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	57

Projected OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	1	1	1	1	
+ Base NRTS	9	9	11	11	
+ Base Conds	0	0	0	0	
= Base Rep Gens	10	10	12	12	44

Forecasted OIM Program Data:

	JUN11	SEP11	DEC11	MAR12	
OIM Program (1)	461	480	501	501	1,943

Forecasted OIM Demand Rate: 0.0360

Actual OIM Program Data:

	JUN11	SEP11	DEC11	MAR12	
Past OIM Program	567	539	469	449	2,024

Actual OIM Demand Rate: 0.0292

Projected OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
Proj OIM Program	313	313	365	364	1,355

Projected OIM Demand Rate: 0.0325

OIM Factor Accuracy:	81 %	OIM Absolute Variance:	11
OIM Program Accuracy:	96 %	OIM Variance Attributable to Program:	-3
		OIM Variance Attributable to Demand Rate:	13

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

June 2012

Detailed Item Forecast and Demand Data for SGM NSN: 1260 01 543 9004 FJ

IRL Status: Repair

448th Ranking: Initial 3,418 / Current 3,392

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

JUN11's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: DDD
Base RTS Excl Indicator:

JUN12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

JUN11's Forecast for (SEP11-JUN12) vs. the (SEP11-JUN12) Reported Value

	SEP11	DEC11	MAR12	JUN12	
Total Forecasted Demand:	13	15	14	14	56
Total Actual Demand:	1	7	38	23	69

Total Demands if the Forecasted OIM and DLM programs were accurate:	57
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	67
Total Absolute Variance:	13
Variance Attributable to Program:	-2
Variance Attributable to Demand Rates:	-11

JUN12's Forecast for (SEP12-JUN13)

	SEP12	DEC12	MAR13	JUN13	
Total Projected Demand:	7	11	11	12	41

Forecasted OIM Usage Data:

	SEP11	DEC11	MAR12	JUN12	
Base RTS	1	0	1	0	
+ Base NRTS	12	15	13	14	
+ Base Conds	0	0	0	0	
= Base Rep Gens	13	15	14	14	56

Actual OIM Usage Data:

	SEP11	DEC11	MAR12	JUN12	
Base RTS	1	0	10	1	
+ Base NRTS	0	7	28	22	
+ Base Conds	0	0	0	0	
= Base Rep Gens	1	7	38	23	69

Total Base Rep Gens if the Forecasted OIM Program was accurate:	57
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	67

Projected OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	1	1	1	2	
+ Base NRTS	6	10	10	10	
+ Base Conds	0	0	0	0	
= Base Rep Gens	7	11	11	12	41

Forecasted OIM Program Data:

	SEP11	DEC11	MAR12	JUN12	
OIM Program (1)	476	501	501	501	1,979

Forecasted OIM Demand Rate: 0.0283

Actual OIM Program Data:

	SEP11	DEC11	MAR12	JUN12	
Past OIM Program	539	469	449	572	2,029

Actual OIM Demand Rate: 0.0340

Projected OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
Proj OIM Program	210	365	364	364	1,303

Projected OIM Demand Rate: 0.0315

OIM Factor Accuracy:	83 %	OIM Absolute Variance:	13
OIM Program Accuracy:	98 %	OIM Variance Attributable to Program:	-2
		OIM Variance Attributable to Demand Rate:	-11

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

September 2012

Detailed Item Forecast and Demand Data for SGM NSN: 1260 01 543 9004 FJ

IRL Status: Repair

448th Ranking: Initial / Current
852 / 840

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

SEP11's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: CAA
Base RTS Excl Indicator:

SEP11's Forecast for (DEC11-SEP12) vs. the (DEC11-SEP12) Reported Value

	DEC11	MAR12	JUN12	SEP12	
Total Forecasted Demand:	12	13	12	13	50
Total Actual Demand:	7	38	23	31	99

Total Demands if the Forecasted OIM and DLM programs were accurate:	57
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	86
Total Absolute Variance:	49
Variance Attributable to Program:	-10
Variance Attributable to Demand Rates:	-39

SEP12's Forecast for (DEC12-SEP13)

	DEC12	MAR13	JUN13	SEP13	
Total Projected Demand:	23	22	23	22	90

Forecasted OIM Usage Data:

	DEC11	MAR12	JUN12	SEP12	
Base RTS	0	1	0	1	
+ Base NRTS	12	12	12	12	
+ Base Conds	0	0	0	0	
= Base Rep Gens	12	13	12	13	50

Actual OIM Usage Data:

	DEC11	MAR12	JUN12	SEP12	
Base RTS	0	10	1	5	
+ Base NRTS	7	28	22	26	
+ Base Conds	0	0	0	0	
= Base Rep Gens	7	38	23	31	99

Projected OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	4	3	4	3	
+ Base NRTS	19	19	19	19	
+ Base Conds	0	0	0	0	
= Base Rep Gens	23	22	23	22	90

Total Base Rep Gens if the Forecasted OIM Program was accurate:	57
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	86

Forecasted OIM Program Data:

	DEC11	MAR12	JUN12	SEP12	
OIM Program (1)	441	441	441	441	1,764

Forecasted OIM Demand Rate: 0.0283

Actual OIM Program Data:

	DEC11	MAR12	JUN12	SEP12	
Past OIM Program	470	451	574	531	2,026

Actual OIM Demand Rate: 0.0489

Projected OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
Proj OIM Program	462	462	461	461	1,846

Projected OIM Demand Rate: 0.0488

OIM Factor Accuracy:	58 %	OIM Absolute Variance:	49
OIM Program Accuracy:	87 %	OIM Variance Attributable to Program:	-10
		OIM Variance Attributable to Demand Rate:	-39

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

December 2012

Detailed Item Forecast and Demand Data for SGM NSN: 1260 01 543 9004 FJ

IRL Status: Repair

448th Ranking: Initial / Current
521 / 508

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

DEC11's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: CAA
Base RTS Excl Indicator:

DEC11's Forecast for (MAR12-DEC12) vs. the (MAR12-DEC12) Reported Value

	MAR12	JUN12	SEP12	DEC12	
Total Forecasted Demand:	9	9	9	8	35
Total Actual Demand:	38	23	31	27	119

Total Demands if the Forecasted OIM and DLM programs were accurate:	52
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	80
Total Absolute Variance:	84
Variance Attributable to Program:	-28
Variance Attributable to Demand Rates:	-56

DEC12's Forecast for (MAR13-DEC13)

	MAR13	JUN13	SEP13	DEC13	
Total Projected Demand:	27	26	26	27	106

Forecasted OIM Usage Data:

	MAR12	JUN12	SEP12	DEC12	
Base RTS	0	1	0	0	
+ Base NRTS	9	8	9	8	
+ Base Conds	0	0	0	0	
= Base Rep Gens	9	9	9	8	35

Actual OIM Usage Data:

	MAR12	JUN12	SEP12	DEC12	
Base RTS	10	1	5	2	
+ Base NRTS	28	22	26	25	
+ Base Conds	0	0	0	0	
= Base Rep Gens	38	23	31	27	119

Projected OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	4	4	4	4	
+ Base NRTS	23	22	22	23	
+ Base Conds	0	0	0	0	
= Base Rep Gens	27	26	26	27	106

Total Base Rep Gens if the Forecasted OIM Program was accurate:	52
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	80

Forecasted OIM Program Data:

	MAR12	JUN12	SEP12	DEC12	
OIM Program (1)	348	348	348	334	1,378

Forecasted OIM Demand Rate: 0.0254

Actual OIM Program Data:

	MAR12	JUN12	SEP12	DEC12	
Past OIM Program	451	574	531	491	2,047

Actual OIM Demand Rate: 0.0581

Projected OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
Proj OIM Program	462	452	452	463	1,829

Projected OIM Demand Rate: 0.0580

OIM Factor Accuracy:	44 %	OIM Absolute Variance:	84
OIM Program Accuracy:	67 %	OIM Variance Attributable to Program:	-28
		OIM Variance Attributable to Demand Rate:	-56

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

March 2013

Detailed Item Forecast and Demand Data for SGM NSN: 1260 01 543 9004 FJ — IRL Status: Repair — 448th Ranking: Initial 815 / Current 818

View in Variance Analysis Worksheet

Management Data:			MAR12's Basic	MAR13's Basic
Wing: 448th SCMW	ES: KKP		ERRC: T	ERRC: T
Group: 748th SCMG			Item Program Select Code: 1000	Item Program Select Code: 1000
Squadron: 416th SCMS	IMS: KWG		Factor Indicator Code: AAA	Factor Indicator Code: CAA
Flight:			Base RTS Excl Indicator:	Base RTS Excl Indicator:

MAR12's Forecast for (JUN12-MAR13) vs. the (JUN12-MAR13) Reported Value

	JUN12	SEP12	DEC12	MAR13	
Total Forecasted Demand:	10	10	12	12	44
Total Actual Demand:	23	31	27	18	99

Total Demands if the Forecasted OIM and DLM programs were accurate:	66
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	66
Total Absolute Variance:	55
Variance Attributable to Program:	-28
Variance Attributable to Demand Rates:	-27

MAR13's Forecast for (JUN13-MAR14)

	JUN13	SEP13	DEC13	MAR14	
Total Projected Demand:	11	11	15	14	51

Forecasted OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	1	1	1	1	
+ Base NRTS	9	9	11	11	
+ Base Conds	0	0	0	0	
= Base Rep Gens	10	10	12	12	44

Actual OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	1	5	2	3	
+ Base NRTS	22	26	25	15	
+ Base Conds	0	0	0	0	
= Base Rep Gens	23	31	27	18	99

Total Base Rep Gens if the Forecasted OIM Program was accurate:	66
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	66

Projected OIM Usage Data:

	JUN13	SEP13	DEC13	MAR14	
Base RTS	1	1	2	2	
+ Base NRTS	10	10	13	12	
+ Base Conds	0	0	0	0	
= Base Rep Gens	11	11	15	14	51

Forecasted OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
OIM Program (1)	313	313	365	364	1,355

Forecasted OIM Demand Rate: 0.0325

Actual OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
Past OIM Program	574	531	491	443	2,039

Actual OIM Demand Rate: 0.0486

Projected OIM Program Data:

	JUN13	SEP13	DEC13	MAR14	
Proj OIM Program	230	229	297	297	1,053

Projected OIM Demand Rate: 0.0484

OIM Factor Accuracy:	67 %	OIM Absolute Variance:	55
OIM Program Accuracy:	66 %	OIM Variance Attributable to Program:	-28
		OIM Variance Attributable to Demand Rate:	-27

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

June 2013

Detailed Item Forecast and Demand Data for SGM NSN: 1260 01 543 9004 FJ — IRL Status: Repair — 448th Ranking: Initial 775 / Current 774

View in Variance Analysis Worksheet

Management Data:			JUN12's Basic Data	JUN13's Basic Data
Wing: 448th SCMW	ES: KKP		ERRC: T	ERRC: T
Group: 748th SCMG			Item Program Select Code: 1000	Item Program Select Code: 1000
Squadron: 416th SCMS	IMS: KWG		Factor Indicator Code: AAA	Factor Indicator Code: CAA
Flight:			Base RTS Excl Indicator:	Base RTS Excl Indicator:

JUN12's Forecast for (SEP12-JUN13) vs. the (SEP12-JUN13) Reported Value

	SEP12	DEC12	MAR13	JUN13	
Total Forecasted Demand:	7	11	11	12	41
Total Actual Demand:	31	27	18	25	101

Total Demands if the Forecasted OIM and DLM programs were accurate:	61
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	68
Total Absolute Variance:	60
Variance Attributable to Program:	-27
Variance Attributable to Demand Rates:	-33

JUN13's Forecast for (SEP13-JUN14)

	SEP13	DEC13	MAR14	JUN14	
Total Projected Demand:	6	16	15	16	53

Forecasted OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	1	1	1	2	
+ Base NRTS	6	10	10	10	
+ Base Conds	0	0	0	0	
= Base Rep Gens	7	11	11	12	41

Actual OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	5	2	3	3	
+ Base NRTS	26	25	15	22	
+ Base Conds	0	0	0	0	
= Base Rep Gens	31	27	18	25	101

Total Base Rep Gens if the Forecasted OIM Program was accurate:	61
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	68

Projected OIM Usage Data:

	SEP13	DEC13	MAR14	JUN14	
Base RTS	1	2	2	2	
+ Base NRTS	5	14	13	14	
+ Base Conds	0	0	0	0	
= Base Rep Gens	6	16	15	16	53

Forecasted OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
OIM Program (1)	210	365	364	364	1,303

Forecasted OIM Demand Rate: 0.0315

Actual OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
Past OIM Program	531	491	443	478	1,943

Actual OIM Demand Rate: 0.0520

Projected OIM Program Data:

	SEP13	DEC13	MAR14	JUN14	
Proj OIM Program	122	297	297	297	1,013

Projected OIM Demand Rate: 0.0523

OIM Factor Accuracy:	61 %	OIM Absolute Variance:	60
OIM Program Accuracy:	67 %	OIM Variance Attributable to Program:	-27
		OIM Variance Attributable to Demand Rate:	-33

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

September 2013

Detailed Item Forecast and Demand Data for SGM NSN: 1260 01 543 9004 FJ

IRL Status: Repair

448th Ranking: Initial / Current 7,885 / 7,786

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

SEP12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: CAA
Base RTS Excl Indicator:

SEP13's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP12's Forecast for (DEC12-SEP13) vs. the (DEC12-SEP13) Reported Value

Total Forecasted Demand:	DEC12	MAR13	JUN13	SEP13	
	23	22	23	22	90

Total Actual Demand:	DEC12	MAR13	JUN13	SEP13	
	27	18	25	17	87

SEP13's Forecast for (DEC13-SEP14)

Total Projected Demand:	DEC13	MAR14	JUN14	SEP14	
	14	14	14	14	56

Total Demands if the Forecasted OIM and DLM programs were accurate:	92
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	85
Total Absolute Variance:	3
Variance Attributable to Program:	-2
Variance Attributable to Demand Rates:	5

Forecasted OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	4	3	4	3	
+ Base NRTS	19	19	19	19	
+ Base Conds	0	0	0	0	
= Base Rep Gens	23	22	23	22	90

Actual OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	2	3	3	1	
+ Base NRTS	25	15	22	16	
+ Base Conds	0	0	0	0	
= Base Rep Gens	27	18	25	17	87

Projected OIM Usage Data:

	DEC13	MAR14	JUN14	SEP14	
Base RTS	2	2	1	2	
+ Base NRTS	12	12	13	12	
+ Base Conds	0	0	0	0	
= Base Rep Gens	14	14	14	14	56

Total Base Rep Gens if the Forecasted OIM Program was accurate:	92
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	85

Forecasted OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
OIM Program (1)	462	462	461	461	1,846

Forecasted OIM Demand Rate: 0.0488

Actual OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
Past OIM Program	491	443	478	475	1,887

Actual OIM Demand Rate: 0.0461

Projected OIM Program Data:

	DEC13	MAR14	JUN14	SEP14	
Proj OIM Program	297	296	296	296	1,185

Projected OIM Demand Rate: 0.0473

OIM Factor Accuracy:	94 %
OIM Program Accuracy:	98 %
OIM Absolute Variance:	3
OIM Variance Attributable to Program:	-2
OIM Variance Attributable to Demand Rate:	5

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

December 2013

Detailed Item Forecast and Demand Data for SGM NSN: 1260 01 543 9004 FJ

IRL Status: Repair

448th Ranking: Initial / Current 1,629 / 1,570

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

DEC12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: CAA
Base RTS Excl Indicator:

DEC13's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC12's Forecast for (MAR13-DEC13) vs. the (MAR13-DEC13) Reported Value

Total Forecasted Demand:	MAR13	JUN13	SEP13	DEC13	
	27	26	26	27	106

Total Actual Demand:	MAR13	JUN13	SEP13	DEC13	
	18	25	17	21	81

DEC13's Forecast for (MAR14-DEC14)

Total Projected Demand:	MAR14	JUN14	SEP14	DEC14	
	16	14	14	9	53

Total Demands if the Forecasted OIM and DLM programs were accurate:	103
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	84
Total Absolute Variance:	25
Variance Attributable to Program:	3
Variance Attributable to Demand Rates:	22

Forecasted OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	4	4	4	4	
+ Base NRTS	23	22	22	23	
+ Base Conds	0	0	0	0	
= Base Rep Gens	27	26	26	27	106

Actual OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	3	3	1	1	
+ Base NRTS	15	22	16	20	
+ Base Conds	0	0	0	0	
= Base Rep Gens	18	25	17	21	81

Projected OIM Usage Data:

	MAR14	JUN14	SEP14	DEC14	
Base RTS	2	2	2	1	
+ Base NRTS	14	12	12	8	
+ Base Conds	0	0	0	0	
= Base Rep Gens	16	14	14	9	53

Total Base Rep Gens if the Forecasted OIM Program was accurate:	103
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	84

Forecasted OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
OIM Program (1)	462	452	452	463	1,829

Forecasted OIM Demand Rate: 0.0580

Actual OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
Past OIM Program	443	478	475	373	1,769

Actual OIM Demand Rate: 0.0458

Projected OIM Program Data:

	MAR14	JUN14	SEP14	DEC14	
Proj OIM Program	296	271	271	171	1,009

Projected OIM Demand Rate: 0.0525

OIM Factor Accuracy:	79 %
OIM Program Accuracy:	97 %
OIM Absolute Variance:	25
OIM Variance Attributable to Program:	3
OIM Variance Attributable to Demand Rate:	22

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

Appendix E: Up Front Controller (UFC) FACT Plus Data

UFC Quarter Demand Variance Lists (Mar 2012 – Dec 2013)

March 2012

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, MAR12 Summary D200A Data Cycle, Updated 26Jun2012
Filtered By: SGM NIIN=015440794
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
DEC11 Forecast for MAR12 vs. MAR12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	26	0	26
Actual Demands:	34	0	34
Absolute Variance:	8	0	8
Demand Forecast Accuracy %:	76%	N/A	76%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	MAR12 ERRC	MAR12 IPSC	MAR12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1.667	1280	015440794	FJ	416th SCMS	GUMB	AKP	T	1000	AAA	N	N	BUY	26	34	8	16	-8	26	34	8	98%	77%	0	0	0	100%	100%

June 2012

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, JUN12 Summary D200A Data Cycle, Updated 18Sep2012
Filtered By: SGM NIIN=015440794
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
MAR12 Forecast for JUN12 vs. JUN12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	26	0	26
Actual Demands:	34	0	34
Absolute Variance:	8	0	8
Demand Forecast Accuracy %:	76%	N/A	76%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	JUN12 ERRC	JUN12 IPSC	JUN12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
2.022	1280	015440794	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	BUY	26	34	8	29	-21	26	34	8	60%	55%	0	0	0	100%	100%

September 2012

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RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, SEP12 Summary D200A Data Cycle, Updated 19Dec2012
Filtered By: SGM NIIN=015440794
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
JUN12 Forecast for SEP12 vs. SEP12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	17	0	17
Actual Demands:	34	0	34
Absolute Variance:	17	0	17
Demand Forecast Accuracy %:	50%	N/A	50%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	SEP12 ERRC	SEP12 IPSC	SEP12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1.112	1280	015440794	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	17	34	17	43	-26	17	34	17	73%	40%	0	0	0	100%	100%

December 2012

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, DEC12 Summary D200A Data Cycle, Updated 19Mar2013
Filtered By: SGM NIIN=015440794
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
SEP12 Forecast for DEC12 vs. DEC12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	38	0	38
Actual Demands:	46	0	46
Absolute Variance:	8	0	8
Demand Forecast Accuracy %:	83%	N/A	83%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	DEC12 ERRC	DEC12 IPSC	DEC12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1.725	1280	015440794	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	38	46	8	10	-2	38	46	8	87%	94%	0	0	0	100%	100%

March 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, MAR13 Summary D200A Data Cycle, Updated 18Jun2013
Filtered By: SGM NIIN=015440794
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
DEC12 Forecast for MAR13 vs. MAR13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	38	0	38
Actual Demands:	80	0	80
Absolute Variance:	42	0	42
Demand Forecast Accuracy %:	48%	N/A	48%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	MAR13 ERRC	MAR13 IPSC	MAR13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
318	1280	015440794	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	38	80	42	41	1	38	80	42	45%	96%	0	0	0	100%	100%

June 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, JUN13 Summary D200A Data Cycle, Updated 18Sep2013
Filtered By: SGM NIIN=015440794
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
MAR13 Forecast for JUN13 vs. JUN13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	22	0	22
Actual Demands:	13	0	13
Absolute Variance:	9	0	9
Demand Forecast Accuracy %:	31%	N/A	31%

448th Ranking (I)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	JUN13 ERRC	JUN13 IPSC	JUN13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,494	1280	015440794	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	Y	REPAIR	22	13	9	33	-24	22	13	9	-151%	46%	0	0	0	100%	100%

September 2013

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, SEP13 Summary D200A Data Cycle, Updated 18Dec2013
Filtered By: SGM NIIN=015440794
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
JUN13 Forecast for SEP13 vs. SEP13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	10	0	10
Actual Demands:	25	0	25
Absolute Variance:	15	0	15
Demand Forecast Accuracy %:	40%	N/A	40%

448th Ranking (I)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	SEP13 ERRC	SEP13 IPSC	SEP13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,008	1280	015440794	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	10	25	15	44	-29	10	25	15	43%	26%	0	0	0	100%	100%

December 2013

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, DEC13 Summary D200A Data Cycle, Updated 18Mar2014
Filtered By: SGM NIIN=015440794
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
SEP13 Forecast for DEC13 vs. DEC13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	23	0	23
Actual Demands:	12	0	12
Absolute Variance:	11	0	11
Demand Forecast Accuracy %:	8%	N/A	8%

448th Ranking (I)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	DEC13 ERRC	DEC13 IPSC	DEC13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,275	1280	015440794	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	23	12	11	17	-6	23	12	11	-39%	80%	0	0	0	100%	100%

UFC Item Drill Down Reports (Mar 2012 – Dec 2013)

March 2012

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 544 0794 FJ

IRL Status: Buy

448th Ranking: Initial / Current 2,005 / 1,058

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: AKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: A8F
Flight:

MAR11's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: DDD
Base RTS Excl Indicator:

MAR12's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

MAR11's Forecast for (JUN11-MAR12) vs. the (JUN11-MAR12) Reported Value

	JUN11	SEP11	DEC11	MAR12	
Total Forecasted Demand:	34	34	37	36	141
Total Actual Demand:	78	37	40	34	189

MAR12's Forecast for (JUN12-MAR13)

	JUN12	SEP12	DEC12	MAR13	
Total Projected Demand:	26	26	31	30	113

Total Demands if the Forecasted OIM and DLM programs were accurate:	147
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	182
Total Absolute Variance:	48
Variance Attributable to Program:	-7
Variance Attributable to Demand Rates:	-41

Forecasted OIM Usage Data:

	JUN11	SEP11	DEC11	MAR12	
Base RTS	10	10	0	0	
+ Base NRTS	24	24	0	0	
+ Base Conds	0	0	37	36	
= Base Rep Gens	34	34	37	36	141

Actual OIM Usage Data:

	JUN11	SEP11	DEC11	MAR12	
Base RTS	54	13	17	17	
+ Base NRTS	20	0	2	16	
+ Base Conds	4	24	21	1	
= Base Rep Gens	78	37	40	34	189

Projected OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	11	12	13	14	
+ Base NRTS	11	10	13	12	
+ Base Conds	4	4	5	4	
= Base Rep Gens	26	26	31	30	113

Total Base Rep Gens if the Forecasted OIM Program was accurate:	147
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	182

Forecasted OIM Program Data:

	JUN11	SEP11	DEC11	MAR12	
OIM Program (1)	231	240	251	251	973

Forecasted OIM Demand Rate: 0.1449

Actual OIM Program Data:

	JUN11	SEP11	DEC11	MAR12	
Past OIM Program	283	270	235	225	1,013

Actual OIM Demand Rate: 0.1866

Projected OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
Proj OIM Program	157	157	183	182	679

Projected OIM Demand Rate: 0.1664

OIM Factor Accuracy:	78 %	OIM Absolute Variance:	48
OIM Program Accuracy:	96 %	OIM Variance Attributable to Program:	-7
		OIM Variance Attributable to Demand Rate:	-41

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

June 2012

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 544 0794 FJ

IRL Status: Buy

448th Ranking: Initial / Current 1,443 / 1,416

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

JUN11's Basic Data
ERRC: P
Item Program Select Code: 1000
Factor Indicator Code: CDD
Base RTS Excl Indicator:

JUN12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

JUN11's Forecast for (SEP11-JUN12) vs. the (SEP11-JUN12) Reported Value

	SEP11	DEC11	MAR12	JUN12	
Total Forecasted Demand:	43	46	46	46	181
Total Actual Demand:	37	40	34	34	145

JUN12's Forecast for (SEP12-JUN13)

	SEP12	DEC12	MAR13	JUN13	
Total Projected Demand:	17	30	30	30	107

Total Demands if the Forecasted OIM and DLM programs were accurate:	186
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	141
Total Absolute Variance:	36
Variance Attributable to Program:	-4
Variance Attributable to Demand Rates:	40

Forecasted OIM Usage Data:

	SEP11	DEC11	MAR12	JUN12	
Base RTS	22	24	24	24	
+ Base NRTS	21	22	22	22	
+ Base Conds	0	0	0	0	
= Base Rep Gens	43	46	46	46	181

Actual OIM Usage Data:

	SEP11	DEC11	MAR12	JUN12	
Base RTS	13	17	17	16	
+ Base NRTS	0	2	16	18	
+ Base Conds	24	21	1	0	
= Base Rep Gens	37	40	34	34	145

Projected OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	8	15	14	14	
+ Base NRTS	6	11	11	12	
+ Base Conds	3	4	5	4	
= Base Rep Gens	17	30	30	30	107

Total Base Rep Gens if the Forecasted OIM Program was accurate:	186
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	141

Forecasted OIM Program Data:

	SEP11	DEC11	MAR12	JUN12	
OIM Program (1)	238	251	251	251	991

Forecasted OIM Demand Rate: 0.1826

Actual OIM Program Data:

	SEP11	DEC11	MAR12	JUN12	
Past OIM Program	270	235	225	286	1,016

Actual OIM Demand Rate: 0.1427

Projected OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
Proj OIM Program	105	183	182	182	652

Projected OIM Demand Rate: 0.1641

OIM Factor Accuracy:	78 %	OIM Absolute Variance:	36
OIM Program Accuracy:	98 %	OIM Variance Attributable to Program:	-4
		OIM Variance Attributable to Demand Rate:	40

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

September 2012

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 544 0794 FJ

IRL Status: Repair

448th Ranking: Initial / Current
2,235 / 2,185

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

SEP11's Basic Data
ERRC: P
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP11's Forecast for (DEC11-SEP12) vs. the (DEC11-SEP12) Reported Value

	DEC11	MAR12	JUN12	SEP12	
Total Forecasted Demand:	31	30	31	31	123
Total Actual Demand:	40	34	34	34	142

Total Demands if the Forecasted OIM and DLM programs were accurate:	141
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	123
Total Absolute Variance:	19
Variance Attributable to Program:	-18
Variance Attributable to Demand Rates:	0

SEP12's Forecast for (DEC12-SEP13)

	DEC12	MAR13	JUN13	SEP13	
Total Projected Demand:	38	37	38	37	150

Forecasted OIM Usage Data:

	DEC11	MAR12	JUN12	SEP12	
Base RTS	13	13	13	13	
+ Base NRTS	18	17	18	18	
+ Base Conds	0	0	0	0	
= Base Rep Gens	31	30	31	31	123

Actual OIM Usage Data:

	DEC11	MAR12	JUN12	SEP12	
Base RTS	17	17	16	20	
+ Base NRTS	2	16	18	14	
+ Base Conds	21	1	0	0	
= Base Rep Gens	40	34	34	34	142

Total Base Rep Gens if the Forecasted OIM Program was accurate:	141
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	123

Projected OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	18	18	18	18	
+ Base NRTS	14	14	14	13	
+ Base Conds	6	5	6	6	
= Base Rep Gens	38	37	38	37	150

Forecasted OIM Program Data:

	DEC11	MAR12	JUN12	SEP12	
OIM Program (1)	220	220	220	220	880

Forecasted OIM Demand Rate: 0.1398

Actual OIM Program Data:

	DEC11	MAR12	JUN12	SEP12	
Past OIM Program	235	225	287	265	1,012

Actual OIM Demand Rate: 0.1403

Projected OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
Proj OIM Program	231	231	231	231	924

Projected OIM Demand Rate: 0.1623

OIM Factor Accuracy:	100 %
OIM Program Accuracy:	87 %
OIM Absolute Variance:	19
OIM Variance Attributable to Program:	-18
OIM Variance Attributable to Demand Rate:	0

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

December 2012

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 544 0794 FJ

IRL Status: Repair

448th Ranking: Initial / Current
996 / 989

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

DEC11's Basic Data
ERRC: P
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC11's Forecast for (MAR12-DEC12) vs. the (MAR12-DEC12) Reported Value

	MAR12	JUN12	SEP12	DEC12	
Total Forecasted Demand:	26	26	26	25	103
Total Actual Demand:	34	34	34	46	148

Total Demands if the Forecasted OIM and DLM programs were accurate:	153
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	100
Total Absolute Variance:	45
Variance Attributable to Program:	-49
Variance Attributable to Demand Rates:	4

DEC12's Forecast for (MAR13-DEC13)

	MAR13	JUN13	SEP13	DEC13	
Total Projected Demand:	38	38	37	39	152

Forecasted OIM Usage Data:

	MAR12	JUN12	SEP12	DEC12	
Base RTS	11	12	11	11	
+ Base NRTS	13	12	13	12	
+ Base Conds	2	2	2	2	
= Base Rep Gens	26	26	26	25	103

Actual OIM Usage Data:

	MAR12	JUN12	SEP12	DEC12	
Base RTS	17	16	20	22	
+ Base NRTS	16	18	14	23	
+ Base Conds	1	0	0	1	
= Base Rep Gens	34	34	34	46	148

Total Base Rep Gens if the Forecasted OIM Program was accurate:	153
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	100

Projected OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	18	18	18	19	
+ Base NRTS	14	14	14	14	
+ Base Conds	6	6	5	6	
= Base Rep Gens	38	38	37	39	152

Forecasted OIM Program Data:

	MAR12	JUN12	SEP12	DEC12	
OIM Program (1)	174	174	174	167	689

Forecasted OIM Demand Rate: 0.1495

Actual OIM Program Data:

	MAR12	JUN12	SEP12	DEC12	
Past OIM Program	225	287	265	245	1,022

Actual OIM Demand Rate: 0.1448

Projected OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
Proj OIM Program	231	226	226	231	914

Projected OIM Demand Rate: 0.1663

OIM Factor Accuracy:	97 %
OIM Program Accuracy:	67 %
OIM Absolute Variance:	45
OIM Variance Attributable to Program:	-49
OIM Variance Attributable to Demand Rate:	4

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

March 2013

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 544 0794 FJ — IRL Status: Repair — 448th Ranking: Initial 537 / Current 536

Management Data:		MAR12's Basic	MAR13's Basic
Wing: 448th SCMW	ES: KKP	ERRC: T	ERRC: T
Group: 748th SCMG		Item Program Select Code: 1000	Item Program Select Code: 1000
Squadron: 416th SCMS	IMS: KWG	Factor Indicator Code: AAA	Factor Indicator Code: AAA
Flight:		Base RTS Excl Indicator:	Base RTS Excl Indicator:

View in Variance Analysis Worksheet

MAR12's Forecast for (JUN12-MAR13) vs. the (JUN12-MAR13) Reported Value

	JUN12	SEP12	DEC12	MAR13	
Total Forecasted Demand:	26	26	31	30	113
Total Actual Demand:	34	34	46	80	194

Total Demands if the Forecasted OIM and DLM programs were accurate:	170
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	129
Total Absolute Variance:	81
Variance Attributable to Program:	-61
Variance Attributable to Demand Rates:	-20

MAR13's Forecast for (JUN13-MAR14)

	JUN13	SEP13	DEC13	MAR14	
Total Projected Demand:	22	21	28	28	99

Forecasted OIM Usage Data:	JUN12	SEP12	DEC12	MAR13	
Base RTS	11	12	13	14	
+ Base NRTS	11	10	13	12	
+ Base Conds	4	4	5	4	
= Base Rep Gens	26	26	31	30	113

Actual OIM Usage Data:	JUN12	SEP12	DEC12	MAR13	
Base RTS	16	20	22	49	
+ Base NRTS	18	14	23	31	
+ Base Conds	0	0	1	0	
= Base Rep Gens	34	34	46	80	194

Total Base Rep Gens if the Forecasted OIM Program was accurate:	170
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	129

Projected OIM Usage Data:	JUN13	SEP13	DEC13	MAR14	
Base RTS	12	11	15	16	
+ Base NRTS	7	7	9	9	
+ Base Conds	3	3	4	3	
= Base Rep Gens	22	21	28	28	99

Forecasted OIM Program Data:	JUN12	SEP12	DEC12	MAR13	
OIM Program (1)	157	157	183	182	679

Forecasted OIM Demand Rate: 0.1664

Actual OIM Program Data:	JUN12	SEP12	DEC12	MAR13	
Past OIM Program	287	265	245	222	1,019

Actual OIM Demand Rate: 0.1904

Projected OIM Program Data:	JUN13	SEP13	DEC13	MAR14	
Proj OIM Program	115	114	148	149	526

Projected OIM Demand Rate: 0.1882

OIM Factor Accuracy:	87 %	OIM Absolute Variance:	81
OIM Program Accuracy:	67 %	OIM Variance Attributable to Program:	-61
		OIM Variance Attributable to Demand Rate:	-20

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

June 2013

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 544 0794 FJ — IRL Status: Repair — 448th Ranking: Initial 703 / Current 697

Management Data:		JUN12's Basic Data	JUN13's Basic Data
Wing: 448th SCMW	ES: KKP	ERRC: T	ERRC: T
Group: 748th SCMG		Item Program Select Code: 1000	Item Program Select Code: 1000
Squadron: 416th SCMS	IMS: KWG	Factor Indicator Code: AAA	Factor Indicator Code: AAA
Flight:		Base RTS Excl Indicator:	Base RTS Excl Indicator:

View in Variance Analysis Worksheet

JUN12's Forecast for (SEP12-JUN13) vs. the (SEP12-JUN13) Reported Value

	SEP12	DEC12	MAR13	JUN13	
Total Forecasted Demand:	17	30	30	30	107
Total Actual Demand:	34	46	80	13	173

Total Demands if the Forecasted OIM and DLM programs were accurate:	159
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	116
Total Absolute Variance:	66
Variance Attributable to Program:	-55
Variance Attributable to Demand Rates:	-11

JUN13's Forecast for (SEP13-JUN14)

	SEP13	DEC13	MAR14	JUN14	
Total Projected Demand:	10	23	24	24	81

Forecasted OIM Usage Data:	SEP12	DEC12	MAR13	JUN13	
Base RTS	8	15	14	14	
+ Base NRTS	6	11	11	12	
+ Base Conds	3	4	5	4	
= Base Rep Gens	17	30	30	30	107

Actual OIM Usage Data:	SEP12	DEC12	MAR13	JUN13	
Base RTS	20	22	49	5	
+ Base NRTS	14	23	31	8	
+ Base Conds	0	1	0	0	
= Base Rep Gens	34	46	80	13	173

Total Base Rep Gens if the Forecasted OIM Program was accurate:	159
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	116

Projected OIM Usage Data:	SEP13	DEC13	MAR14	JUN14	
Base RTS	5	11	12	13	
+ Base NRTS	3	9	8	8	
+ Base Conds	2	3	4	3	
= Base Rep Gens	10	23	24	24	81

Forecasted OIM Program Data:	SEP12	DEC12	MAR13	JUN13	
OIM Program (1)	105	183	182	182	652

Forecasted OIM Demand Rate: 0.1641

Actual OIM Program Data:	SEP12	DEC12	MAR13	JUN13	
Past OIM Program	265	245	222	239	971

Actual OIM Demand Rate: 0.1782

Projected OIM Program Data:	SEP13	DEC13	MAR14	JUN14	
Proj OIM Program	61	148	149	148	506

Projected OIM Demand Rate: 0.1601

OIM Factor Accuracy:	92 %	OIM Absolute Variance:	66
OIM Program Accuracy:	67 %	OIM Variance Attributable to Program:	-55
		OIM Variance Attributable to Demand Rate:	-11

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

September 2013

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 544 0794 FJ

IRL Status: Repair

448th Ranking: Initial 2,574 / Current 2,556

View in Variance Analysis Worksheet

Management Data:			SEP12's Basic Data	SEP13's Basic Data
Wing:	448th SCMW	ES: KKP	ERRC: T	ERRC: T
Group:	748th SCMG		Item Program Select Code: 1000	Item Program Select Code: 1000
Squadron:	416th SCMS	IMS: KWG	Factor Indicator Code: AAA	Factor Indicator Code: AAA
Flight:			Base RTS Excl Indicator:	Base RTS Excl Indicator:

SEP12's Forecast for (DEC12-SEP13) vs. the (DEC12-SEP13) Reported Value

	DEC12	MAR13	JUN13	SEP13	
Total Forecasted Demand:	38	37	38	37	150
Total Actual Demand:	46	80	13	25	164

Total Demands if the Forecasted OIM and DLM programs were accurate:	153
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	160
Total Absolute Variance:	14
Variance Attributable to Program:	-3
Variance Attributable to Demand Rates:	-11

SEP13's Forecast for (DEC13-SEP14)

	DEC13	MAR14	JUN14	SEP14	
Total Projected Demand:	23	23	24	23	93

Forecasted OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	18	18	18	18	
+ Base NRTS	14	14	14	13	
+ Base Conds	6	5	6	6	
= Base Rep Gens	38	37	38	37	150

Actual OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	22	49	5	0	
+ Base NRTS	23	31	8	25	
+ Base Conds	1	0	0	0	
= Base Rep Gens	46	80	13	25	164

Projected OIM Usage Data:

	DEC13	MAR14	JUN14	SEP14	
Base RTS	11	10	13	10	
+ Base NRTS	10	11	10	11	
+ Base Conds	2	2	1	2	
= Base Rep Gens	23	23	24	23	93

Total Base Rep Gens if the Forecasted OIM Program was accurate:	153
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	160

Forecasted OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
OIM Program (1)	231	231	231	231	924

Forecasted OIM Demand Rate: 0.1623

Actual OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
Past OIM Program	245	222	239	238	944

Actual OIM Demand Rate: 0.1737

Projected OIM Program Data:

	DEC13	MAR14	JUN14	SEP14	
Proj OIM Program	149	148	148	148	593

Projected OIM Demand Rate: 0.1568

OIM Factor Accuracy:	93 %	OIM Absolute Variance:	14
OIM Program Accuracy:	98 %	OIM Variance Attributable to Program:	-3
		OIM Variance Attributable to Demand Rate:	-11

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

December 2013

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 544 0794 FJ

IRL Status: Repair

448th Ranking: Initial 1,843 / Current 1,762

View in Variance Analysis Worksheet

Management Data:			DEC12's Basic Data	DEC13's Basic Data
Wing:	448th SCMW	ES: KKP	ERRC: T	ERRC: T
Group:	748th SCMG		Item Program Select Code: 1000	Item Program Select Code: 1000
Squadron:	416th SCMS	IMS: KWG	Factor Indicator Code: AAA	Factor Indicator Code: AAA
Flight:			Base RTS Excl Indicator:	Base RTS Excl Indicator:

DEC12's Forecast for (MAR13-DEC13) vs. the (MAR13-DEC13) Reported Value

	MAR13	JUN13	SEP13	DEC13	
Total Forecasted Demand:	38	38	37	39	152
Total Actual Demand:	80	13	25	12	130

Total Demands if the Forecasted OIM and DLM programs were accurate:	147
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	134
Total Absolute Variance:	22
Variance Attributable to Program:	5
Variance Attributable to Demand Rates:	17

DEC13's Forecast for (MAR14-DEC14)

	MAR14	JUN14	SEP14	DEC14	
Total Projected Demand:	22	19	20	13	74

Forecasted OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	18	18	18	19	
+ Base NRTS	14	14	14	14	
+ Base Conds	6	6	5	6	
= Base Rep Gens	38	38	37	39	152

Actual OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	49	5	0	3	
+ Base NRTS	31	8	25	9	
+ Base Conds	0	0	0	0	
= Base Rep Gens	80	13	25	12	130

Projected OIM Usage Data:

	MAR14	JUN14	SEP14	DEC14	
Base RTS	11	9	9	7	
+ Base NRTS	11	10	11	6	
+ Base Conds	0	0	0	0	
= Base Rep Gens	22	19	20	13	74

Total Base Rep Gens if the Forecasted OIM Program was accurate:	147
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	134

Forecasted OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
OIM Program (1)	231	226	226	231	914

Forecasted OIM Demand Rate: 0.1663

Actual OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
Past OIM Program	222	239	238	186	885

Actual OIM Demand Rate: 0.1469

Projected OIM Program Data:

	MAR14	JUN14	SEP14	DEC14	
Proj OIM Program	148	136	136	86	506

Projected OIM Demand Rate: 0.1462

OIM Factor Accuracy:	88 %	OIM Absolute Variance:	22
OIM Program Accuracy:	97 %	OIM Variance Attributable to Program:	5
		OIM Variance Attributable to Demand Rate:	17

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

Appendix F: Central Interface Control Unit (CICU) FACT Plus Data

CICU Quarter Demand Variance Lists (Mar 2012 – Dec 2013)

March 2012

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, MAR12 Summary D200A Data Cycle, Updated 26Jun2012
Filtered By: SGM NIIN=015867702
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
DEC11 Forecast for MAR12 vs. MAR12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	36	0	36
Actual Demands:	52	0	52
Absolute Variance:	16	0	16
Demand Forecast Accuracy %:	69%	N/A	69%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	MAR12 ERRC	MAR12 IPSC	MAR12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,007	1280	015867702	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	36	52	16	27	-11	36	52	16	89%	77%	0	0	0	100%	100%

June 2012

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, JUN12 Summary D200A Data Cycle, Updated 18Sep2012
Filtered By: SGM NIIN=015867702
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
MAR12 Forecast for JUN12 vs. JUN12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	35	0	35
Actual Demands:	65	0	65
Absolute Variance:	30	0	30
Demand Forecast Accuracy %:	54%	N/A	54%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	JUN12 ERRC	JUN12 IPSC	JUN12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
437	1280	015867702	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	35	65	30	59	-29	35	65	30	98%	55%	0	0	0	100%	100%

September 2012

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RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, SEP12 Summary D200A Data Cycle, Updated 19Dec2012
Filtered By: SGM NIIN=015867702
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
JUN12 Forecast for SEP12 vs. SEP12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	23	0	23
Actual Demands:	80	0	80
Absolute Variance:	57	0	57
Demand Forecast Accuracy %:	29%	N/A	29%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	SEP12 ERRC	SEP12 IPSC	SEP12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
331	1280	015867702	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	23	80	57	92	-35	23	80	57	72%	40%	0	0	0	100%	100%

December 2012

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RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, DEC12 Summary D200A Data Cycle, Updated 19Mar2013
Filtered By: SGM NIIN=015867702
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
SEP12 Forecast for DEC12 vs. DEC12 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	52	0	52
Actual Demands:	54	0	54
Absolute Variance:	2	0	2
Demand Forecast Accuracy %:	96%	N/A	96%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	DEC12 ERRC	DEC12 IPSC	DEC12 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
6,289	1280	015867702	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	52	54	2	5	-3	52	54	2	97%	94%	0	0	0	100%	100%

March 2013

401 SCMS/GUMD
RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, MAR13 Summary D200A Data Cycle, Updated 18Jun2013
Filtered By: SGM NIIN=015867702
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
DEC12 Forecast for MAR13 vs. MAR13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	52	0	52
Actual Demands:	63	0	63
Absolute Variance:	11	0	11
Demand Forecast Accuracy %:	83%	N/A	83%

448th Ranking (1)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	MAR13 ERRC	MAR13 IPSC	MAR13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,038	1280	015867702	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	BUY	52	63	11	9	2	52	63	11	79%	96%	0	0	0	100%	100%

June 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, JUN13 Summary D200A Data Cycle, Updated 18Sep2013
Filtered By: SGM NIIN=015867702
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
MAR13 Forecast for JUN13 vs. JUN13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	27	0	27
Actual Demands:	48	0	48
Absolute Variance:	21	0	21
Demand Forecast Accuracy %:	56%	N/A	56%

448th Ranking (I)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	JUN13 ERRC	JUN13 IPSC	JUN13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
565	1280	015867702	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	Y	REPAIR	27	48	21	50	-29	27	48	21	83%	48%	0	0	0	100%	100%

September 2013

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RIPIT Team

D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, SEP13 Summary D200A Data Cycle, Updated 18Dec2013
Filtered By: SGM NIIN=015867702
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
JUN13 Forecast for SEP13 vs. SEP13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	15	0	15
Actual Demands:	41	0	41
Absolute Variance:	26	0	26
Demand Forecast Accuracy %:	37%	N/A	37%

448th Ranking (I)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	SEP13 ERRC	SEP13 IPSC	SEP13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
453	1280	015867702	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	15	41	26	70	-44	15	41	26	37%	26%	0	0	0	100%	100%

December 2013

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D200A Forecasting Analysis Comparison Tool

Quarter Demand Variance List
For ALC=OO, DEC13 Summary D200A Data Cycle, Updated 18Mar2014
Filtered By: SGM NIIN=015867702
View the Demand Forecast Worksheet

Download Results to Excel

Total Items in Comparison: 1
SEP13 Forecast for DEC13 vs. DEC13 Actual

FACTPlus Qtr Detail Report Summary	OIM	DLM	Overall
Forecast Demands:	32	0	32
Actual Demands:	36	0	36
Absolute Variance:	4	0	4
Demand Forecast Accuracy %:	89%	N/A	89%

448th Ranking (I)	FSC	SGM NIIN	MMAC	Squadron	Flight	ES	DEC13 ERRC	DEC13 IPSC	DEC13 Factor Ind Code	IMS Rev	ES Rev	IRL Status	Forecasted Total	Actual Total	Total Variance	Total Variance Attributable to Factors	Total Variance Attributable to Program	Forecasted OIM	Actual OIM	OIM Variance	OIM Factor Accuracy	OIM Program Accuracy	Forecasted DLM	Actual DLM	DLM Variance	DLM Factor Accuracy	DLM Program Accuracy
1,282	1280	015867702	FJ	416th SCMS	GUMB	KKP	T	1000	AAA	N	N	REPAIR	32	36	4	12	-8	32	36	4	88%	80%	0	0	0	100%	100%

CICU Item Drill Down Reports (Mar 2012 – Dec 2013)

March 2012

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 586 7702 FJ

IRL Status: Repair

448th Ranking: Initial 1,139 / Current 1,586

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

MAR11's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: MMM
Base RTS Excl Indicator:

MAR12's Basic
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

MAR11's Forecast for (JUN11-MAR12) vs. the (JUN11-MAR12) Reported Value

	JUN11	SEP11	DEC11	MAR12	
Total Forecasted Demand:	62	64	67	67	260
Total Actual Demand:	56	67	54	52	229

Total Demands if the Forecasted OIM and DLM programs were accurate:	285
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	209
Total Absolute Variance:	31
Variance Attributable to Program:	-23
Variance Attributable to Demand Rates:	54

MAR12's Forecast for (JUN12-MAR13)

	JUN12	SEP12	DEC12	MAR13	
Total Projected Demand:	35	35	41	41	152

Forecasted OIM Usage Data:

	JUN11	SEP11	DEC11	MAR12	
Base RTS	0	0	0	0	
+ Base NRTS	62	64	67	67	
+ Base Conds	0	0	0	0	
= Base Rep Gens	62	64	67	67	260

Actual OIM Usage Data:

	JUN11	SEP11	DEC11	MAR12	
Base RTS	0	0	3	7	
+ Base NRTS	56	67	51	45	
+ Base Conds	0	0	0	0	
= Base Rep Gens	56	67	54	52	229

Total Base Rep Gens if the Forecasted OIM Program was accurate:	285
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	209

Projected OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	1	1	1	2	
+ Base NRTS	34	34	40	39	
+ Base Conds	0	0	0	0	
= Base Rep Gens	35	35	41	41	152

Forecasted OIM Program Data:

	JUN11	SEP11	DEC11	MAR12	
OIM Program (1)	219	228	238	238	923

Forecasted OIM Demand Rate: 0.2817

Actual OIM Program Data:

	JUN11	SEP11	DEC11	MAR12	
Past OIM Program	283	270	235	225	1,013

Actual OIM Demand Rate: 0.2261

Projected OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
Proj OIM Program	157	157	183	182	679

Projected OIM Demand Rate: 0.2239

OIM Factor Accuracy:	80 %	OIM Absolute Variance:	31
OIM Program Accuracy:	91 %	OIM Variance Attributable to Program:	-23
		OIM Variance Attributable to Demand Rate:	54

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

June 2012

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 586 7702 FJ

IRL Status: Repair

448th Ranking: Initial 1,219 / Current 2,029

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

JUN11's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: CAA
Base RTS Excl Indicator:

JUN12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

JUN11's Forecast for (SEP11-JUN12) vs. the (SEP11-JUN12) Reported Value

	SEP11	DEC11	MAR12	JUN12	
Total Forecasted Demand:	49	52	52	51	204
Total Actual Demand:	67	51	45	65	228

Total Demands if the Forecasted OIM and DLM programs were accurate:	209
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	222
Total Absolute Variance:	24
Variance Attributable to Program:	-5
Variance Attributable to Demand Rates:	-19

JUN12's Forecast for (SEP12-JUN13)

	SEP12	DEC12	MAR13	JUN13	
Total Projected Demand:	23	40	40	39	142

Forecasted OIM Usage Data:

	SEP11	DEC11	MAR12	JUN12	
Base RTS	0	0	0	0	
+ Base NRTS	49	52	52	51	
+ Base Conds	0	0	0	0	
= Base Rep Gens	49	52	52	51	204

Actual OIM Usage Data:

	SEP11	DEC11	MAR12	JUN12	
Base RTS	0	0	0	0	
+ Base NRTS	67	51	45	65	
+ Base Conds	0	0	0	0	
= Base Rep Gens	67	51	45	65	228

Total Base Rep Gens if the Forecasted OIM Program was accurate:	209
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	222

Projected OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	0	0	0	0	
+ Base NRTS	23	40	40	39	
+ Base Conds	0	0	0	0	
= Base Rep Gens	23	40	40	39	142

Forecasted OIM Program Data:

	SEP11	DEC11	MAR12	JUN12	
OIM Program (1)	238	251	251	251	991

Forecasted OIM Demand Rate: 0.2059

Actual OIM Program Data:

	SEP11	DEC11	MAR12	JUN12	
Past OIM Program	270	235	225	286	1,016

Actual OIM Demand Rate: 0.2244

Projected OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
Proj OIM Program	105	183	182	182	652

Projected OIM Demand Rate: 0.2178

OIM Factor Accuracy:	92 %	OIM Absolute Variance:	24
OIM Program Accuracy:	98 %	OIM Variance Attributable to Program:	-5
		OIM Variance Attributable to Demand Rate:	-19

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

September 2012

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 586 7702 FJ

IRL Status: Repair

448th Ranking: Initial / Current 727 / 713

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

SEP11's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: CAA
Base RTS Excl Indicator:

SEP12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP11's Forecast for (DEC11-SEP12) vs. the (DEC11-SEP12) Reported Value

	DEC11	MAR12	JUN12	SEP12	
Total Forecasted Demand:	46	46	47	46	185
Total Actual Demand:	51	45	65	80	241

SEP12's Forecast for (DEC12-SEP13)

	DEC12	MAR13	JUN13	SEP13	
Total Projected Demand:	52	53	52	53	210

Total Demands if the Forecasted OIM and DLM programs were accurate:	213
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	210
Total Absolute Variance:	56
Variance Attributable to Program:	-30
Variance Attributable to Demand Rates:	-26

Forecasted OIM Usage Data:

	DEC11	MAR12	JUN12	SEP12	
Base RTS	0	0	0	0	
+ Base NRTS	46	46	47	46	
+ Base Conds	0	0	0	0	
= Base Rep Gens	46	46	47	46	185

Actual OIM Usage Data:

	DEC11	MAR12	JUN12	SEP12	
Base RTS	0	0	0	7	
+ Base NRTS	51	45	65	73	
+ Base Conds	0	0	0	0	
= Base Rep Gens	51	45	65	80	241

Projected OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	1	1	1	1	
+ Base NRTS	51	52	51	52	
+ Base Conds	0	0	0	0	
= Base Rep Gens	52	53	52	53	210

Total Base Rep Gens if the Forecasted OIM Program was accurate:	213
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	210

Forecasted OIM Program Data:

	DEC11	MAR12	JUN12	SEP12	
OIM Program (1)	220	220	220	220	880

Forecasted OIM Demand Rate: 0.2102

Actual OIM Program Data:

	DEC11	MAR12	JUN12	SEP12	
Past OIM Program	235	225	287	265	1,012

Actual OIM Demand Rate: 0.2381

Projected OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
Proj OIM Program	231	231	231	231	924

Projected OIM Demand Rate: 0.2273

OIM Factor Accuracy:	88 %
OIM Program Accuracy:	87 %
OIM Absolute Variance:	56
OIM Variance Attributable to Program:	-30
OIM Variance Attributable to Demand Rate:	-26

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

December 2012

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 586 7702 FJ

IRL Status: Repair

448th Ranking: Initial / Current 424 / 418

View in Variance Analysis Worksheet

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

DEC11's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: CAA
Base RTS Excl Indicator:

DEC12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC11's Forecast for (MAR12-DEC12) vs. the (MAR12-DEC12) Reported Value

	MAR12	JUN12	SEP12	DEC12	
Total Forecasted Demand:	36	37	36	35	144
Total Actual Demand:	45	65	80	54	244

DEC12's Forecast for (MAR13-DEC13)

	MAR13	JUN13	SEP13	DEC13	
Total Projected Demand:	52	51	51	52	206

Total Demands if the Forecasted OIM and DLM programs were accurate:	214
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	164
Total Absolute Variance:	100
Variance Attributable to Program:	-75
Variance Attributable to Demand Rates:	-25

Forecasted OIM Usage Data:

	MAR12	JUN12	SEP12	DEC12	
Base RTS	0	1	0	0	
+ Base NRTS	36	36	36	35	
+ Base Conds	0	0	0	0	
= Base Rep Gens	36	37	36	35	144

Actual OIM Usage Data:

	MAR12	JUN12	SEP12	DEC12	
Base RTS	0	0	7	6	
+ Base NRTS	45	65	73	48	
+ Base Conds	0	0	0	0	
= Base Rep Gens	45	65	80	54	244

Projected OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	2	1	2	1	
+ Base NRTS	50	50	49	51	
+ Base Conds	0	0	0	0	
= Base Rep Gens	52	51	51	52	206

Total Base Rep Gens if the Forecasted OIM Program was accurate:	214
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	164

Forecasted OIM Program Data:

	MAR12	JUN12	SEP12	DEC12	
OIM Program (1)	174	174	174	167	689

Forecasted OIM Demand Rate: 0.2090

Actual OIM Program Data:

	MAR12	JUN12	SEP12	DEC12	
Past OIM Program	225	287	265	245	1,022

Actual OIM Demand Rate: 0.2387

Projected OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
Proj OIM Program	231	226	226	231	914

Projected OIM Demand Rate: 0.2254

OIM Factor Accuracy:	88 %
OIM Program Accuracy:	67 %
OIM Absolute Variance:	100
OIM Variance Attributable to Program:	-75
OIM Variance Attributable to Demand Rate:	-25

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

March 2013

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 586 7702 FJ

IRL Status: Buy

448th Ranking: Initial / Current
387 / 395

View in Variance Analysis Worksheet

Management Data:			
Wing:	448th SCMW	ES:	KKP
Group:	748th SCMG		
Squadron:	416th SCMS	IMS:	KWG
Flight:			

MAR12's Basic	
ERRC:	T
Item Program Select Code:	1000
Factor Indicator Code:	AAA
Base RTS Excl Indicator:	

MAR13's Basic	
ERRC:	T
Item Program Select Code:	1000
Factor Indicator Code:	AAA
Base RTS Excl Indicator:	

MAR12's Forecast for (JUN12-MAR13) vs. the (JUN12-MAR13) Reported Value

	JUN12	SEP12	DEC12	MAR13	
Total Forecasted Demand:	35	35	41	41	152
Total Actual Demand:	65	80	54	63	262

Total Demands if the Forecasted OIM and DLM programs were accurate:	228
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	175
Total Absolute Variance:	110
Variance Attributable to Program:	-82
Variance Attributable to Demand Rates:	-28

MAR13's Forecast for (JUN13-MAR14)

	JUN13	SEP13	DEC13	MAR14	
Total Projected Demand:	27	27	35	35	124

Forecasted OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	1	1	1	2	
+ Base NRTS	34	34	40	39	
+ Base Conds	0	0	0	0	
= Base Rep Gens	35	35	41	41	152

Actual OIM Usage Data:

	JUN12	SEP12	DEC12	MAR13	
Base RTS	0	7	6	8	
+ Base NRTS	65	73	48	55	
+ Base Conds	0	0	0	0	
= Base Rep Gens	65	80	54	63	262

Total Base Rep Gens if the Forecasted OIM Program was accurate:	228
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	175

Projected OIM Usage Data:

	JUN13	SEP13	DEC13	MAR14	
Base RTS	1	1	2	1	
+ Base NRTS	26	26	33	34	
+ Base Conds	0	0	0	0	
= Base Rep Gens	27	27	35	35	124

Forecasted OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
OIM Program (1)	157	157	183	182	679

Forecasted OIM Demand Rate: 0.2239

Actual OIM Program Data:

	JUN12	SEP12	DEC12	MAR13	
Past OIM Program	287	265	245	222	1,019

Actual OIM Demand Rate: 0.2571

Projected OIM Program Data:

	JUN13	SEP13	DEC13	MAR14	
Proj OIM Program	115	114	148	149	526

Projected OIM Demand Rate: 0.2357

OIM Factor Accuracy:	87 %	OIM Absolute Variance:	110
OIM Program Accuracy:	67 %	OIM Variance Attributable to Program:	-82
		OIM Variance Attributable to Demand Rate:	-28

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

June 2013

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 586 7702 FJ

IRL Status: Repair

448th Ranking: Initial / Current
461 / 455

View in Variance Analysis Worksheet

Management Data:			
Wing:	448th SCMW	ES:	KKP
Group:	748th SCMG		
Squadron:	416th SCMS	IMS:	KWG
Flight:			

JUN12's Basic Data	
ERRC:	T
Item Program Select Code:	1000
Factor Indicator Code:	AAA
Base RTS Excl Indicator:	

JUN13's Basic Data	
ERRC:	T
Item Program Select Code:	1000
Factor Indicator Code:	AAA
Base RTS Excl Indicator:	

JUN12's Forecast for (SEP12-JUN13) vs. the (SEP12-JUN13) Reported Value

	SEP12	DEC12	MAR13	JUN13	
Total Forecasted Demand:	23	40	40	39	142
Total Actual Demand:	80	54	63	48	245

Total Demands if the Forecasted OIM and DLM programs were accurate:	211
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	164
Total Absolute Variance:	103
Variance Attributable to Program:	-75
Variance Attributable to Demand Rates:	-28

JUN13's Forecast for (SEP13-JUN14)

	SEP13	DEC13	MAR14	JUN14	
Total Projected Demand:	15	35	35	35	120

Forecasted OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	0	0	0	0	
+ Base NRTS	23	40	40	39	
+ Base Conds	0	0	0	0	
= Base Rep Gens	23	40	40	39	142

Actual OIM Usage Data:

	SEP12	DEC12	MAR13	JUN13	
Base RTS	7	6	8	3	
+ Base NRTS	73	48	55	45	
+ Base Conds	0	0	0	0	
= Base Rep Gens	80	54	63	48	245

Total Base Rep Gens if the Forecasted OIM Program was accurate:	211
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	164

Projected OIM Usage Data:

	SEP13	DEC13	MAR14	JUN14	
Base RTS	1	2	1	2	
+ Base NRTS	14	33	34	33	
+ Base Conds	0	0	0	0	
= Base Rep Gens	15	35	35	35	120

Forecasted OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
OIM Program (1)	105	183	182	182	652

Forecasted OIM Demand Rate: 0.2178

Actual OIM Program Data:

	SEP12	DEC12	MAR13	JUN13	
Past OIM Program	265	245	222	239	971

Actual OIM Demand Rate: 0.2523

Projected OIM Program Data:

	SEP13	DEC13	MAR14	JUN14	
Proj OIM Program	61	148	149	148	506

Projected OIM Demand Rate: 0.2372

OIM Factor Accuracy:	86 %	OIM Absolute Variance:	103
OIM Program Accuracy:	67 %	OIM Variance Attributable to Program:	-75
		OIM Variance Attributable to Demand Rate:	-28

☐ Actual OIM Demands, but no Forecasted OIM Program

☐ Forecasted OIM Demands, but no Actual OIM Demands

September 2013

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 586 7702 FJ

IRL Status: Repair

448th Ranking: Initial / Current
14,112 / 1,947

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

SEP12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

SEP13's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

View in Variance Analysis Worksheet

SEP12's Forecast for (DEC12-SEP13) vs. the (DEC12-SEP13) Reported Value

	DEC12	MAR13	JUN13	SEP13	
Total Forecasted Demand:	52	53	52	53	210
Total Actual Demand:	48	57	45	41	191

Total Demands if the Forecasted OIM and DLM programs were accurate:	215
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	187
Total Absolute Variance:	19
Variance Attributable to Program:	-4
Variance Attributable to Demand Rates:	23

SEP13's Forecast for (DEC13-SEP14)

	DEC13	MAR14	JUN14	SEP14	
Total Projected Demand:	32	33	32	32	129

Forecasted OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	1	1	1	1	
+ Base NRTS	51	52	51	52	
+ Base Conds	0	0	0	0	
= Base Rep Gens	52	53	52	53	210

Actual OIM Usage Data:

	DEC12	MAR13	JUN13	SEP13	
Base RTS	0	0	0	0	
+ Base NRTS	48	57	45	41	
+ Base Conds	0	0	0	0	
= Base Rep Gens	48	57	45	41	191

Total Base Rep Gens if the Forecasted OIM Program was accurate:	215
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	187

Projected OIM Usage Data:

	DEC13	MAR14	JUN14	SEP14	
Base RTS	0	0	0	0	
+ Base NRTS	32	33	32	32	
+ Base Conds	0	0	0	0	
= Base Rep Gens	32	33	32	32	129

Forecasted OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
OIM Program (1)	231	231	231	231	924

Forecasted OIM Demand Rate: 0.2273

Actual OIM Program Data:

	DEC12	MAR13	JUN13	SEP13	
Past OIM Program	245	222	239	238	944

Actual OIM Demand Rate: 0.2023

Projected OIM Program Data:

	DEC13	MAR14	JUN14	SEP14	
Proj OIM Program	149	148	148	148	593

Projected OIM Demand Rate: 0.2175

OIM Factor Accuracy:	89 %	OIM Absolute Variance:	19
OIM Program Accuracy:	98 %	OIM Variance Attributable to Program:	-4
		OIM Variance Attributable to Demand Rate:	23

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

December 2013

Detailed Item Forecast and Demand Data for SGM NSN: 1280 01 586 7702 FJ

IRL Status: Repair

448th Ranking: Initial / Current
1,846 / 1,461

Management Data:
Wing: 448th SCMW ES: KKP
Group: 748th SCMG
Squadron: 416th SCMS IMS: KWG
Flight:

DEC12's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

DEC13's Basic Data
ERRC: T
Item Program Select Code: 1000
Factor Indicator Code: AAA
Base RTS Excl Indicator:

View in Variance Analysis Worksheet

DEC12's Forecast for (MAR13-DEC13) vs. the (MAR13-DEC13) Reported Value

	MAR13	JUN13	SEP13	DEC13	
Total Forecasted Demand:	52	51	51	52	206
Total Actual Demand:	57	45	41	36	179

Total Demands if the Forecasted OIM and DLM programs were accurate:	199
Total Demands if the Forecasted OIM and DLM Demand Rates were accurate:	185
Total Absolute Variance:	27
Variance Attributable to Program:	6
Variance Attributable to Demand Rates:	21

DEC13's Forecast for (MAR14-DEC14)

	MAR14	JUN14	SEP14	DEC14	
Total Projected Demand:	32	29	29	19	109

Forecasted OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	2	1	2	1	
+ Base NRTS	50	50	49	51	
+ Base Conds	0	0	0	0	
= Base Rep Gens	52	51	51	52	206

Actual OIM Usage Data:

	MAR13	JUN13	SEP13	DEC13	
Base RTS	0	0	0	0	
+ Base NRTS	57	45	41	36	
+ Base Conds	0	0	0	0	
= Base Rep Gens	57	45	41	36	179

Total Base Rep Gens if the Forecasted OIM Program was accurate:	199
Total Base Rep Gens if the Forecasted OIM Demand rate was accurate:	185

Projected OIM Usage Data:

	MAR14	JUN14	SEP14	DEC14	
Base RTS	0	0	0	0	
+ Base NRTS	32	29	29	19	
+ Base Conds	0	0	0	0	
= Base Rep Gens	32	29	29	19	109

Forecasted OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
OIM Program (1)	231	226	226	231	914

Forecasted OIM Demand Rate: 0.2254

Actual OIM Program Data:

	MAR13	JUN13	SEP13	DEC13	
Past OIM Program	222	239	238	186	885

Actual OIM Demand Rate: 0.2023

Projected OIM Program Data:

	MAR14	JUN14	SEP14	DEC14	
Proj OIM Program	148	136	136	86	506

Projected OIM Demand Rate: 0.2154

OIM Factor Accuracy:	90 %	OIM Absolute Variance:	27
OIM Program Accuracy:	97 %	OIM Variance Attributable to Program:	6
		OIM Variance Attributable to Demand Rate:	21

☐ Actual OIM Demands, but no Forecasted OIM Program
☐ Forecasted OIM Demands, but no Actual OIM Demands

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1316
AS OF: 31 DEC 13
PRGM BEG: 0906

SGN: 5945 01 570 8885 FJ

PART NUMBER: 160D145315-21
CAGE: 26512
ITEM NAME: NAV MODE RELAY BOX

ALC: OO
ES: KKP
IMS: KWG
PMS: KWG

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: AAA
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 2
OIM DEP RPR CYCLE DAYS: 30
NJR DEP RPR CYCLE DAYS: 26
CONDITION X ASSET: 0

UNIT PRICE FCST: 23,240.00
UNIT REPAIR COST: 2,581
UNIT REPAIR MANHOURS: 15

SOR %	OC	OO	SA	SM	WR	CT
	0	100	0	0	0	0
SOR %	DM	OT	UN			
	0	0	0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
855	829	615	574	676	MTBD	829	829	829	829	829	829	
0.1170	0.1206	0.1625	0.1743	0.1479	TOT OIM DMND RATE	0.1206	0.1206	0.1206	0.1206	0.1206	0.1206	
0.0363	0.0398	0.0666	0.0575	0.0503	OIM DEP DMND RATE	0.0398	0.0398	0.0398	0.0398	0.0398	0.0398	
0.0807	0.0808	0.0959	0.1168	0.0976	OIM BASE RPR RATE	0.0808	0.0808	0.0808	0.0808	0.0808	0.0808	
31	33	41		34	BASE NRTS %	33	33	33	33	33	33	
69	67	59		66	BASE PROCESSED %	67	67	67	67	67	67	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
0	0	0		0	MISTR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

NAV MODE RB – CURRENT

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

CUR: 10 APR 14 1316
AS OF: 31 DEC 13
PRGM BEG: 0906

SGM: 5945 01 570 8885 FJ

* PAST USAGE HISTORY - SUBGROUP MASTER LEVEL *

QTRS 12-9 MAR-11	JUN-11	SEP-11	DEC-11	TYPE USAGE	QTRS 8-1 MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13	8 QTR TOTAL
20	11	12	18	BASE RTS	16	11	22	21	16	13	10	3	112
5	5	14	6	BASE NRTS	5	4	10	8	5	12	7	5	56
0	0	0	0	BASE CNDMN	0	0	0	0	0	0	0	0	0
25	16	26	24	BASE REPGENS	21	15	32	29	21	25	17	8	168
0	0	0	0	DEP REPGENS	0	0	0	0	0	0	0	0	0
5	1	13	5	MISTR RPR	4	5	0	1	8	4	1	1	24
1	0	0	0	MISTR CNDMN	0	0	0	0	0	0	0	0	0
1	0	0	0	DEP CNDM TOT	0	0	0	0	0	0	0	0	0

QUARTER OF LAST DEMAND 1312

* * * * * * * * * * * * * * * * * * * TOTAL ITEM PAST INSTALLED PROGRAM - SUBGROUP MASTER TOTAL * * * * * * * * * * * * * * * * * * *

QTRS 12-9 MAR-11	JUN-11	SEP-11	DEC-11	TYPE PROGRAM	QTRS 8-1 MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13	8 QTR TOTAL
216	273	270	235	OIM	225	276	249	206	153	131	97	56	1393
0	0	0	0	PDM	0	0	0	0	0	0	0	0	0
0	0	0	0	ENG OH	0	0	0	0	0	0	0	0	0
0	0	0	0	NHA MISTR	0	0	0	0	0	0	0	0	0

* PAST FACTORS *

RATES AND PERCENTS		MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13
TOT OIM DMND RATE	QTR	0.0933	0.0543	0.1285	0.1408	0.1373	0.1908	0.1753	0.1429
TOT OIM DMND RATE	MAH	0.0823	0.0804	0.0895	0.0964	0.0975	0.1106	0.1170	0.1206
BASE NRTS %	QTR	24	27	31	28	24	48	41	63
BASE NRTS %	MAH	30	29	29	30	31	33	31	33
BASE CNDMN %	QTR	0	0	0	0	0	0	0	0
BASE CNDMN %	MAH	0	0	0	0	0	0	0	0
MISTR CNDMN %	QTR	0	0	0	0	0	0	0	0
MISTR CNDMN %	MAH	3	2	2	3	0	0	0	0
PDM JR CNDMN %	QTR	0	0	0	0	0	0	0	0
PDM JR CNDMN %	MAH	0	0	0	0	0	0	0	0
PDM NJR REPL %	QTR	0	0	0	0	0	0	0	0
PDM NJR REPL %	MAH	0	0	0	0	0	0	0	0
PDM NJR PRGM %	QTR	0	0	0	0	0	0	0	0
PDM NJR PRGM %	MAH	0	0	0	0	0	0	0	0
EOH JR CNDMN %	QTR	0	0	0	0	0	0	0	0
EOH JR CNDMN %	MAH	0	0	0	0	0	0	0	0
EOH NJR REPL %	QTR	0	0	0	0	0	0	0	0
EOH NJR REPL %	MAH	0	0	0	0	0	0	0	0
EOH NJR PRGM %	QTR	0	0	0	0	0	0	0	0
EOH NJR PRGM %	MAH	0	0	0	0	0	0	0	0
NHA MISTR JR CNDMN	QTR	0	0	0	0	0	0	0	0
NHA MISTR JR CNDMN	MAH	0	0	0	0	0	0	0	0

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

CUR: 10 APR 14 1316
AS OF: 31 DEC 13

SGM: 5945 01 570 8885 FJ

ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	39 39 39	39 39 39	39 39 39	28 39 39	39 39 39	39 39 39	39 39 39	39 39 39	39 39 0	39 39 39	39 39 39	39 39 39
OIM OPERATING RQMT	5 5 5	5 5 5	5 5 5	3 5 5	5 5 5	5 5 5	5 5 5	5 5 5	5 5 0	5 5 5	5 5 5	5 5 5
BASE SFTY LVL-2 (FULL)	0 0 0	0 0 0	0 0 0	5 0 0	5 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
* BASE SFTY LVL-2 (LTD)	0 0 0	0 0 0	0 0 0	5 0 0	5 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
TOT BASE STK LVL (FULL)	0 0 0	0 0 0	0 0 5	5 0 0	5 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
* TOT BASE STK LVL (LTD)	0 0 0	0 0 0	0 0 5	5 0 0	5 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
DEPOT SAFETY LVL (FULL)	0 0 0	0 0 0	0 0 1	1 0 0	1 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
* DEPOT SAFETY LVL (LTD)	0 0 0	0 0 0	0 0 1	1 0 0	1 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
WRSK-BLSS RQMT	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 0	9 9 9	9 9 9	9 9 9
TOTAL GROSS RQMT (FULL)	14 14 14	14 14 14	14 14 20	18 14 14	20 14 14	14 14 14	14 14 14	14 14 14	14 14 0	14 14 14	14 14 14	14 14 14

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REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1331
AS OP: 31 DEC 13
PRGM BEG: 0906

SGM: 5945 01 570 8885 FJ

PART NUMBER: 160D145315-21
CAGE: 26512
ITEM NAME: NAV MODE RELAY BOX

ALC: OO
ES: KKP
IMS: KWG
PMS: KWG

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 2
OIM DEP RPR CYCLE DAYS: 30
NJR DEP RPR CYCLE DAYS: 26
CONDITION X ASSET: 0

UNIT PRICE FCST: 23,240.00
UNIT REPAIR COST: 2,581
UNIT REPAIR MANHOURS: 15

SOR %	OC	OO	SA	SM	WR	CT
	0	100	0	0	0	0
SOR %	DM	OT	UN			
	0	0	0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
855	829	615	574	676	MTBD	1658	1658	1658	1658	1658	1658	
0.1170	0.1206	0.1625	0.1743	0.1479	TOT OIM DMND RATE	0.0603	0.0603	0.0603	0.0603	0.0603	0.0603	2013-12
0.0363	0.0398	0.0666	0.0575	0.0503	OIM DEP DMND RATE	0.0199	0.0199	0.0199	0.0199	0.0199	0.0199	
0.0807	0.0808	0.0959	0.1168	0.0976	OIM BASE RPR RATE	0.0404	0.0404	0.0404	0.0404	0.0404	0.0404	
31	33	41		34	BASE NRTS %	33	33	33	33	33	33	
69	67	59		66	BASE PROCESSED %	67	67	67	67	67	67	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
0	0	0		0	MISTR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

NAV MODE RB - 50% of CURRENT

50% of Dec-13 TOIMDR

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAA881
CUR: 10 APR 14 1331
AS OF: 31 DEC 13

SGM: 5945 01 570 8885 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	39 39 39	39 39 39	39 39 39	28 39 39	39 39 39	39 39 39	39 39 39	39 39 39	39 39 0	39 39 39	39 39 39	39 39 39
OIM OPERATING RQMT	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 0	2 2 2	2 2 2	2 2 2
BASE SFTY LVL-2 (FULL)	0 0 0	0 0 0	0 0 0	5 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
* BASE SFTY LVL-2 (LTD)	0 0 0	0 0 0	0 0 0	5 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
TOT BASE STK LVL (FULL)	0 0 0	0 0 0	0 0 5	5 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
* TOT BASE STK LVL (LTD)	0 0 0	0 0 0	0 0 5	5 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
DEPOT SAFETY LVL (FULL)	0 0 0	0 0 0	0 0 1	1 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
* DEPOT SAFETY LVL (LTD)	0 0 0	0 0 0	0 0 1	1 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
WRSK-BLSS RQMT	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 0	9 9 9	9 9 9	9 9 9
TOTAL GROSS RQMT (FULL)	11 11 11	11 11 11	11 11 17	17 11 11	11 11 11	11 11 11	11 11 11	11 11 11	11 11 0	11 11 11	11 11 11	11 11 11

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REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1331
AS OF: 31 DEC 13
PRGM BEG: 0906

SGM: 5945 01 570 8885 FJ

PART NUMBER: 160D145315-21
CAGE: 26512
ITEM NAME: NAV MODE RELAY BOX

ALC: OO
ES: KKP
IMS: KWG
PMS: KWG

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 2
OIM DEP RPR CYCLE DAYS: 30
NJR DEP RPR CYCLE DAYS: 26
CONDITION X ASSET: 0

UNIT PRICE FCST: 23,240.00
UNIT REPAIR COST: 2,581
UNIT REPAIR MANHOURS: 15

SOR %	OC 0	OO 100	SA 0	SM 0	WR 0	CT 0
SOR %	DM 0	OT 0	UN 0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
855	829	615	574	676	MTBD	1105	1105	1105	1105	1105	1105	
0.1170	0.1206	0.1625	0.1743	0.1479	TOT OIM DMND RATE	0.0905	0.0905	0.0905	0.0905	0.0905	0.0905	2013-12
0.0363	0.0398	0.0666	0.0575	0.0503	OIM DEP DMND RATE	0.0299	0.0299	0.0299	0.0299	0.0299	0.0299	
0.0807	0.0808	0.0959	0.1168	0.0976	OIM BASE RPR RATE	0.0606	0.0606	0.0606	0.0606	0.0606	0.0606	
31	33	41		34	BASE NRTS %	33	33	33	33	33	33	
69	67	59		66	BASE PROCESSED %	67	67	67	67	67	67	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
0	0	0		0	MISTR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

NAV MODE RB - 75% of CURRENT

75% of Dec-13 TOIMDR

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

CUR: 10 APR 14 1331
AS OF: 31 DEC 13

SGM: 5945 01 570 8885 FJ

ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	39 39 39	39 39 39	39 39 39	28 39 39	39 39 39	39 39 39	39 39 39	39 39 39	39 39 0	39 39 39	39 39 39	39 39 39
OIM OPERATING RQMT	4 4 4	4 4 4	4 4 4	3 4 4	4 4 4	4 4 4	4 4 4	4 4 4	4 4 0	4 4 4	4 4 4	4 4 4
BASE SFTY LVL-2 (FULL)	0 0 0	0 0 0	0 0 0	5 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
* BASE SFTY LVL-2 (LTD)	0 0 0	0 0 0	0 0 0	5 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
TOT BASE STK LVL (FULL)	0 0 0	0 0 0	0 0 5	5 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
* TOT BASE STK LVL (LTD)	0 0 0	0 0 0	0 0 5	5 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
DEPOT SAFETY LVL (FULL)	0 0 0	0 0 0	0 0 1	1 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
* DEPOT SAFETY LVL (LTD)	0 0 0	0 0 0	0 0 1	1 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
WRSK-BLSS RQMT	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 0	9 9 9	9 9 9	9 9 9
TOTAL GROSS RQMT (FULL)	13 13 13	13 13 13	13 13 19	18 13 13	13 13 13	13 13 13	13 13 13	13 13 13	13 13 0	13 13 13	13 13 13	13 13 13

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1401
AS OF: 31 DEC 13
PRGM BEG: 0906

SGM: 5945 01 570 8885 FJ

PART NUMBER: 160D145315-21
CAGE: 26512
ITEM NAME: NAV MODE RELAY BOX

ALC: OO
ES: KKP
IMS: KWG
PMS: KWG

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 2
OIM DEP RPR CYCLE DAYS: 30
NJR DEP RPR CYCLE DAYS: 26
CONDITION X ASSET: 0

UNIT PRICE FCST: 23,240.00
UNIT REPAIR COST: 2,581
UNIT REPAIR MANHOURS: 15

SOR %	OC 0	OO 100	SA 0	SM 0	WR 0	CT 0
SOR %	DM 0	OT 0	UN 0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
855	829	615	574	676	MTBD	663	663	663	663	663	663	
0.1170	0.1206	0.1625	0.1743	0.1479	TOT OIM DMND RATE	0.1508	0.1508	0.1508	0.1508	0.1508	0.1508	2013-12
0.0363	0.0398	0.0666	0.0575	0.0503	OIM DEP DMND RATE	0.0498	0.0498	0.0498	0.0498	0.0498	0.0498	
0.0807	0.0808	0.0959	0.1168	0.0976	OIM BASE RPR RATE	0.1010	0.1010	0.1010	0.1010	0.1010	0.1010	
31	33	41		34	BASE NRTS %	33	33	33	33	33	33	
69	67	59		66	BASE PROCESSED %	67	67	67	67	67	67	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
0	0	0		0	MISTR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

NAV MODE RB - 1.25% of CURRENT

125% of Dec-13 TOIMDR

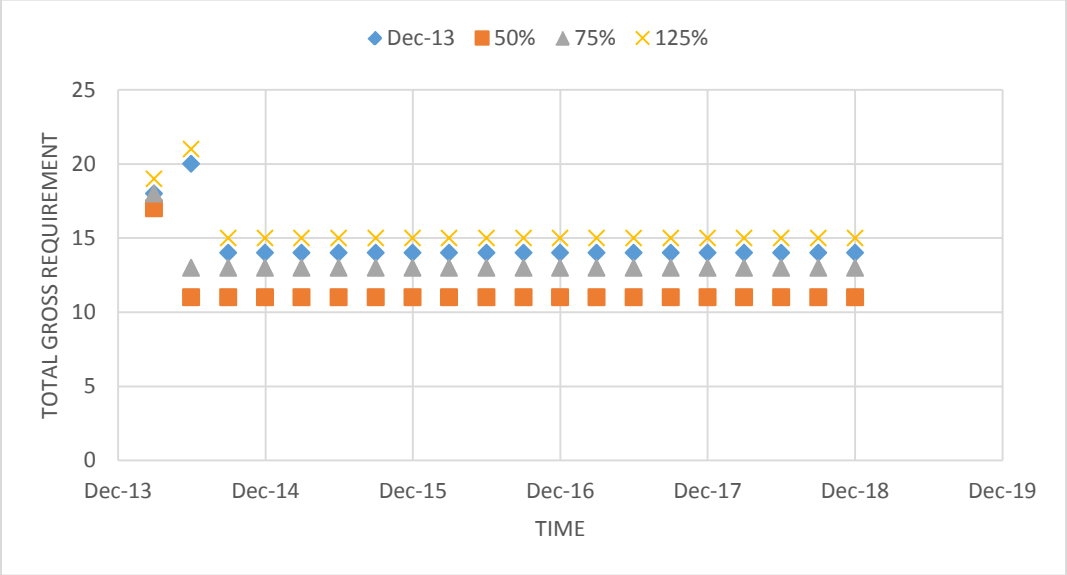
REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1401
AS OF: 31 DEC 13

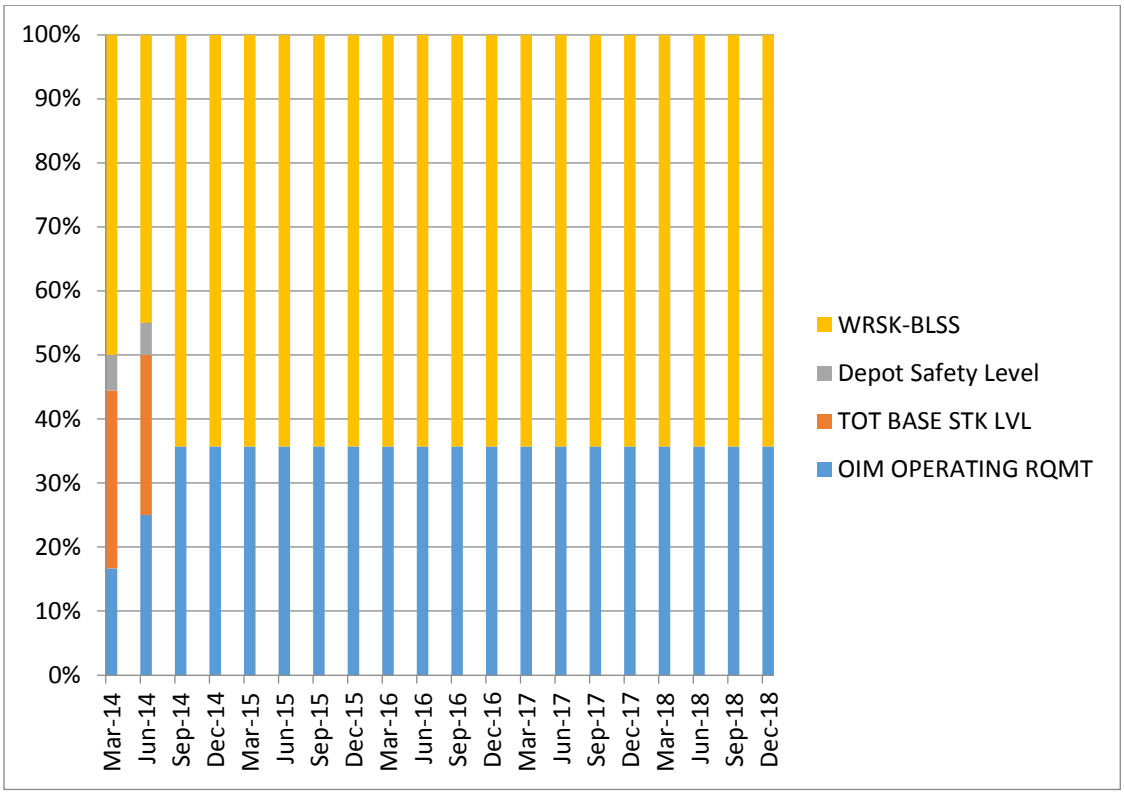
SGM: 5945 01 570 8885 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	39 39 39	39 39 39	39 39 39	28 39 39	39 39 39	39 39 39	39 39 39	39 39 39 39	39 39 39 0	39 39 39 39	39 39 39 39	39 39 39 39
OIM OPERATING RQMT	6 6 6	6 6 6	6 6 6	4 6 6	6 6 6	6 6 6	6 6 6	6 6 6 6	6 6 6 0	6 6 6 6	6 6 6 6	6 6 6 6
BASE SFTY LVL-2 (FULL)	0 0 0	0 0 0	0 0 0	5 0 0	5 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
* BASE SFTY LVL-2 (LTD)	0 0 0	0 0 0	0 0 0	5 0 0	5 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
TOT BASE STK LVL (FULL)	0 0 0	0 0 0	0 0 5	5 0 0	5 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
* TOT BASE STK LVL (LTD)	0 0 0	0 0 0	0 0 5	5 0 0	5 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
DEPOT SAFETY LVL (FULL)	0 0 0	0 0 0	0 0 1	1 0 0	1 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
* DEPOT SAFETY LVL (LTD)	0 0 0	0 0 0	0 0 1	1 0 0	1 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
WRSK-BLSS RQMT	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9 9	9 9 9 0	9 9 9 9	9 9 9 9	9 9 9 9
TOTAL GROSS RQMT (FULL)	15 15 15	15 15 15	15 15 21	19 15 15	21 15 15	15 15 15	15 15 15	15 15 15 15	15 15 15 0	15 15 15 15	15 15 15 15	15 15 15 15

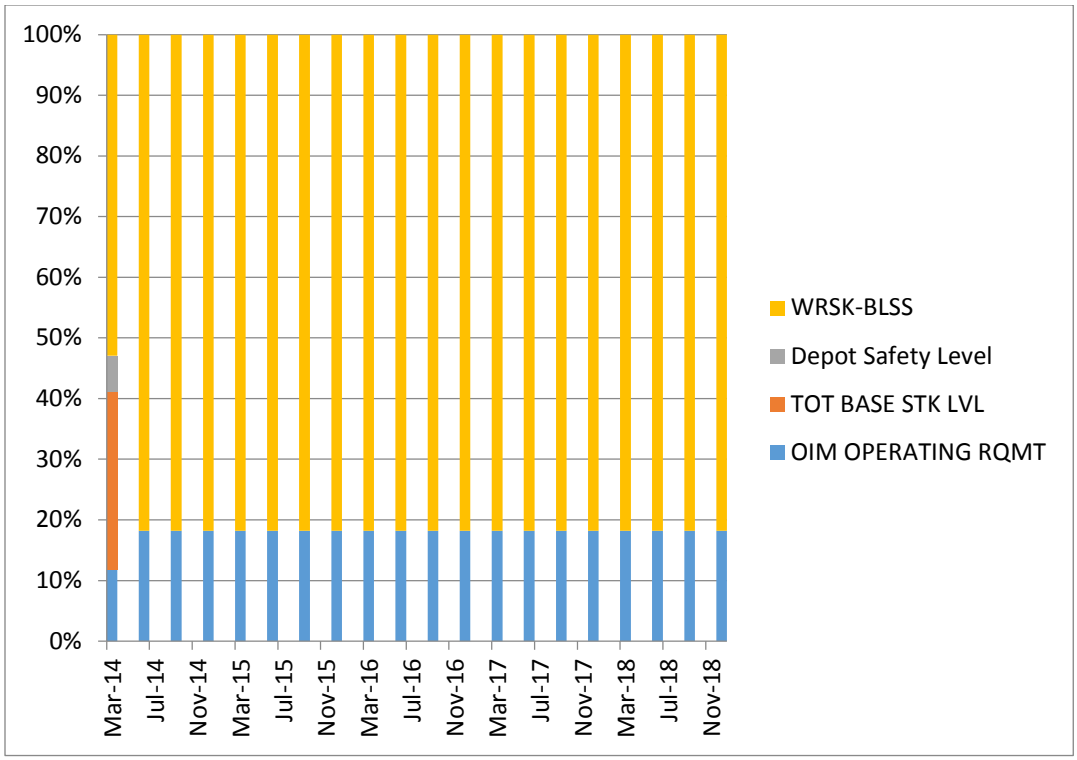
Appendix H: NAV Mode Output Graphs



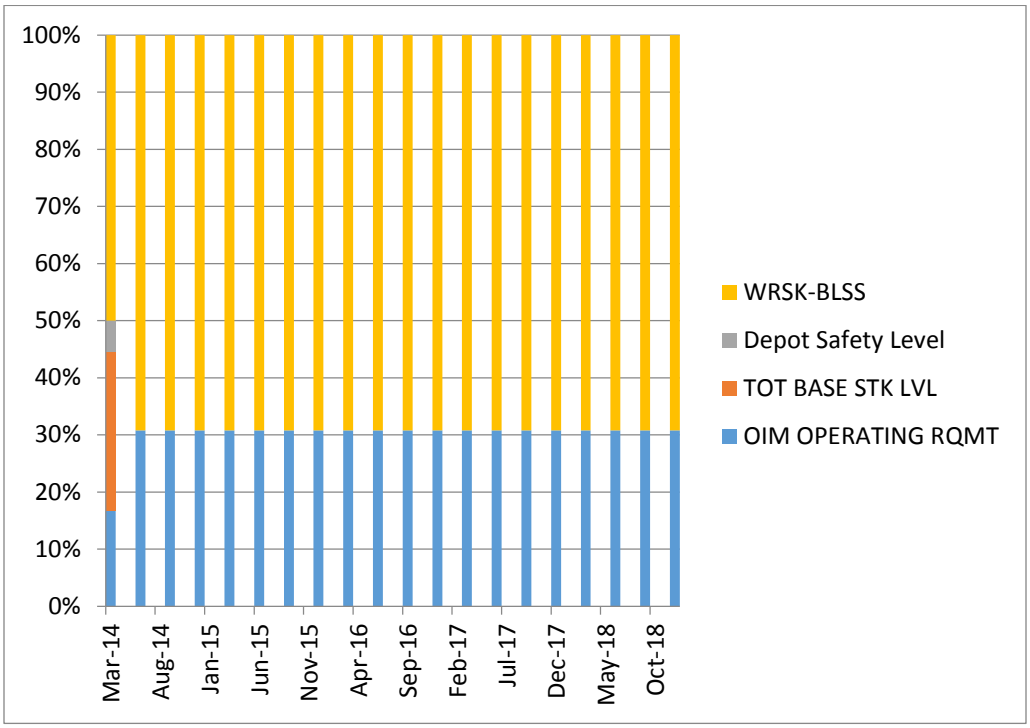
NAV Mode Time Vs Total Gross Requirement



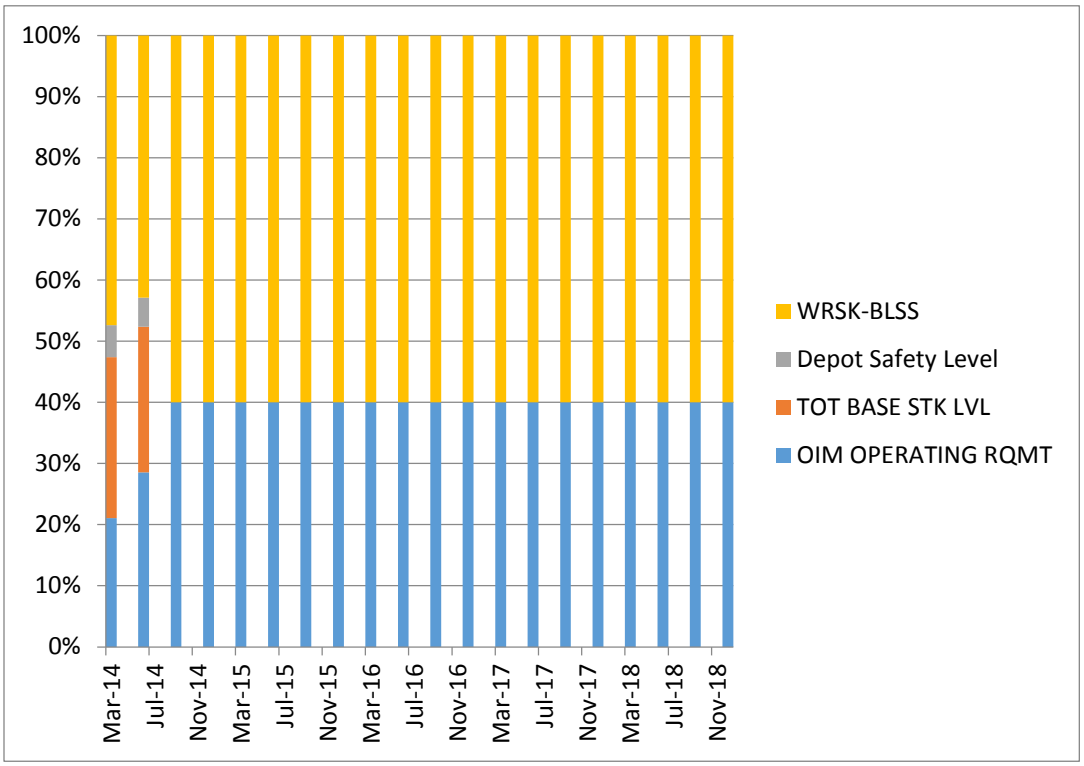
NAV Mode Dec-13 TOIMDR Requirements as percentage of Total Gross Requirements



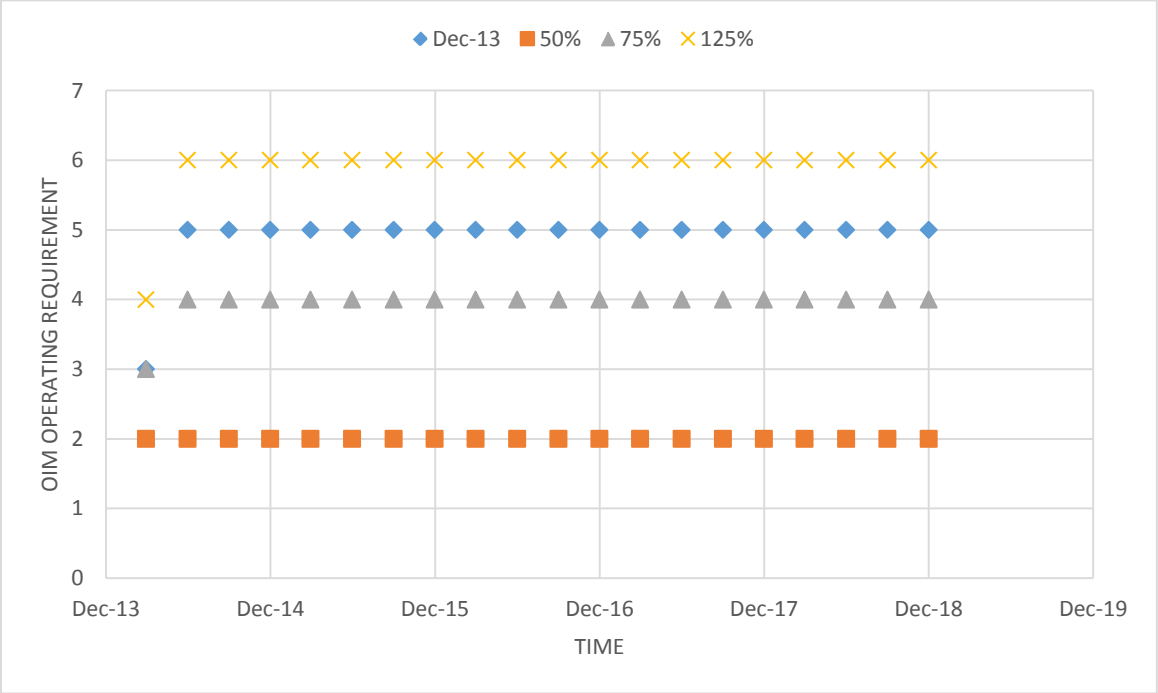
NAV Mode 50% of Dec 13 TOIMDR Requirements as percentage of Total Gross Requirements



NAV Mode 75% TOIMDR Requirements as percentage of Total Gross Requirement



NAV Mode 125% TOIMDR Requirements as percentage of Total Gross Requirement



NAV Mode Future Program vs OIM OPERATING RQMT

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1331
AS OF: 31 DEC 13
PRGM BEG: 0803

SGM: 5945 01 568 1990 FJ

PART NUMBER: 160D145279-29
CAGE: 26512
ITEM NAME: MISC RELAY BOX

ALC: OO
ES: AKN
IMS: A8F
PMS:

ERRC: P
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 1
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: AAA
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 3
OIM DEP RPR CYCLE DAYS: 37
NJR DEP RPR CYCLE DAYS: 28
CONDITION X ASSET: 0

UNIT PRICE FCST: 6,317.80
UNIT REPAIR COST: 1,268
UNIT REPAIR MANHOURS: 0

SOR %	OC	OO	SA	SM	WR	CT
	0	0	0	0	0	0

SOR %	DM	OT	UN
	0	100	0

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
2674	2513	1261	1289	1715	MTBD	2513	2513	2513	2513	2513	2513	
0.0374	0.0398	0.0793	0.0776	0.0583	TOT OIM DMND RATE	0.0398	0.0398	0.0398	0.0398	0.0398	0.0398	
0.0168	0.0155	0.0262	0.0303	0.0152	OIM DEP DMND RATE	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	
0.0206	0.0243	0.0531	0.0473	0.0431	OIM BASE RPR RATE	0.0243	0.0243	0.0243	0.0243	0.0243	0.0243	
0	0	0		0	BASE NRTS %	0	0	0	0	0	0	
100	100	100		100	BASE PROCESSED %	100	100	100	100	100	100	
45	39	33		26	BASE CNDMN %	39	39	39	39	39	39	
100	0	0		0	MISTR CNDMN %	100	100	100	100	100	100	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

MISC Relay Box - CURRENT

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

CUR: 10 APR 14 1331
AS OF: 31 DEC 13
PRGM BEG: 0803

SGM: 5945 01 568 1990 FJ

* PAST USAGE HISTORY - SUBGROUP MASTER LEVEL *

QTRS 12-9 MAR-11	JUN-11	SEP-11	DEC-11	TYPE USAGE	QTRS 8-1 MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13	8 QTR TOTAL
4	0	2	2	BASE RTS	5	3	1	2	10	4	6	4	35
0	0	0	0	BASE NRTS	0	0	0	0	0	0	0	0	0
0	2	1	5	BASE CNDMN	5	0	4	1	7	3	2	0	22
4	2	3	7	BASE REPGENS	10	3	5	3	17	7	8	4	57
0	0	0	0	DEP REPGENS	0	0	0	0	0	0	0	0	0
0	0	0	1	MISTR RPR	0	0	0	0	1	0	0	0	1
0	0	0	0	MISTR CNDMN	0	0	0	0	0	0	0	0	0
0	0	0	0	DEP CNDM TOT	0	0	0	0	0	0	0	0	0

QUARTER OF LAST DEMAND 1312

* TOTAL ITEM PAST INSTALLED PROGRAM - SUBGROUP MASTER TOTAL *

QTRS 12-9 MAR-11	JUN-11	SEP-11	DEC-11	TYPE PROGRAM	QTRS 8-1 MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13	8 QTR TOTAL
240	284	270	235	OIM	225	287	265	201	151	131	109	63	1432
0	0	0	0	PDM	0	0	0	0	0	0	0	0	0
0	0	0	0	ENG OH	0	0	0	0	0	0	0	0	0
0	0	0	0	NHA MISTR	0	0	0	0	0	0	0	0	0

* PAST FACTORS *

RATES AND PERCENTS		MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13
TOT OIM DMND RATE	QTR	0.0444	0.0105	0.0189	0.0149	0.1126	0.0534	0.0734	0.0635
TOT OIM DMND RATE	MAH	0.0127	0.0128	0.0122	0.0127	0.0246	0.0277	0.0374	0.0398
BASE NRTS %	QTR	0	0	0	0	0	0	0	0
BASE NRTS %	MAH	0	0	0	0	0	0	0	0
BASE CNDMN %	QTR	50	0	80	33	41	43	25	0
BASE CNDMN %	MAH	32	31	28	27	50	47	45	39
MISTR CNDMN %	QTR	0	0	0	0	0	0	0	0
MISTR CNDMN %	MAH	0	0	0	0	0	0	0	0
PDM JR CNDMN %	QTR	0	0	0	0	0	0	0	0
PDM JR CNDMN %	MAH	0	0	0	0	0	0	0	0
PDM NJR REPL %	QTR	0	0	0	0	0	0	0	0
PDM NJR REPL %	MAH	0	0	0	0	0	0	0	0
PDM NJR PRGM %	QTR	0	0	0	0	0	0	0	0
PDM NJR PRGM %	MAH	0	0	0	0	0	0	0	0
EOH JR CNDMN %	QTR	0	0	0	0	0	0	0	0
EOH JR CNDMN %	MAH	0	0	0	0	0	0	0	0
EOH NJR REPL %	QTR	0	0	0	0	0	0	0	0
EOH NJR REPL %	MAH	0	0	0	0	0	0	0	0
EOH NJR PRGM %	QTR	0	0	0	0	0	0	0	0
EOH NJR PRGM %	MAH	0	0	0	0	0	0	0	0
NHA MISTR JR CNDMN	QTR	0	0	0	0	0	0	0	0
NHA MISTR JR CNDMN	MAH	0	0	0	0	0	0	0	0

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REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

CUR: 10 APR 14 1331
AS OF: 31 DEC 13

SGM: 5945 01 568 1990 FJ

ALC: OO IMS: A8F ES: AKN

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	44 44 44	44 44 44	44 44 44	30 44 44	44 44 44	44 44 44	44 44 44	44 44 44 44	44 44 44 0	44 44 44 44	44 44 44 44	44 44 44 44
OIM OPERATING RQMT	2 2 2	2 2 2	2 2 2	1 2 2	2 2 2	2 2 2	2 2 2	2 2 2 2	2 2 2 0	2 2 2 2	2 2 2 2	2 2 2 2
BASE SFTY LVL-2 (FULL)	0 0 0	0 0 0	0 0 0	8 0 0	5 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
* BASE SFTY LVL-2 (LTD)	0 0 0	0 0 0	0 0 0	8 0 0	5 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
TOT BASE STK LVL (FULL)	0 0 0	0 0 0	0 0 8	8 0 0	5 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
* TOT BASE STK LVL (LTD)	0 0 0	0 0 0	0 0 8	8 0 0	5 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
DEPOT SAFETY LVL (FULL)	0 0 0	0 0 0	0 0 6	4 0 0	6 0 0	3 0 0	0 0 0	0 0 0 3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
* DEPOT SAFETY LVL (LTD)	0 0 0	0 0 0	0 0 6	4 0 0	6 0 0	3 0 0	0 0 0	0 0 0 3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
WRSK-BLSS RQMT	2 2 2	2 2 2	2 2 0	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2 2	2 2 2 0	2 2 2 2	2 2 2 2	2 2 2 2
TOTAL GROSS RQMT (FULL)	4 4 4	4 4 4	4 4 18	15 4 4	15 4 4	7 4 4	4 4 4	4 4 4 7	4 4 4 0	4 4 4 4	4 4 4 4	4 4 4 4

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1331
AS OF: 31 DEC 13
PRGM BEG: 0803

SGM: 5945 01 568 1990 FJ

PART NUMBER: 160D145279-29
CAGE: 26512
ITEM NAME: MISC RELAY BOX

ALC: OO
ES: AKN
IMS: A8F
PMS:

ERRC: P
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 1
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 3
OIM DEP RPR CYCLE DAYS: 37
NJR DEP RPR CYCLE DAYS: 28
CONDITION X ASSET: 0

UNIT PRICE FCST: 6,317.80
UNIT REPAIR COST: 1,268
UNIT REPAIR MANHOURS: 0

SOR %	OC 0	OO 0	SA 0	SM 0	WR 0	CT 0
SOR %	DM 0	OT 100	UN 0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
2674	2513	1261	1289	1715	MTBD	5025	5025	5025	5025	5025	5025	
0.0374	0.0398	0.0793	0.0776	0.0583	TOT OIM DMND RATE	0.0199	0.0199	0.0199	0.0199	0.0199	0.0199	2013-12
0.0168	0.0155	0.0262	0.0303	0.0152	OIM DEP DMND RATE	0.0078	0.0078	0.0078	0.0078	0.0078	0.0078	
0.0206	0.0243	0.0531	0.0473	0.0431	OIM BASE RPR RATE	0.0121	0.0121	0.0121	0.0121	0.0121	0.0121	
0	0	0		0	BASE NRTS %	0	0	0	0	0	0	
100	100	100		100	BASE PROCESSED %	100	100	100	100	100	100	
45	39	33		26	BASE CNDMN %	39	39	39	39	39	39	
100	0	0		0	MISTR CNDMN %	100	100	100	100	100	100	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

MISC RB – 50% of CURRENT

50% of Dec-13 TOIMDR

PAGE 2 OO-A8F

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

CUR: 10 APR 14 1331
AS OF: 31 DEC 13

SGM: 5945 01 568 1990 FJ

ALC: OO IMS: A8F ES: AKN

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	44 44 44	44 44 44	44 44 44	30 44 44	44 44 44	44 44 44	44 44 44	44 44 44 44	44 44 44 0	44 44 44 44	44 44 44 44	44 44 44 44
OIM OPERATING RQMT	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1 1	1 1 1 0	1 1 1 1	1 1 1 1	1 1 1 1
BASE SFTY LVL-2 (FULL)	0 0 0	0 0 0	0 0 0	5 0 0	4 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
* BASE SFTY LVL-2 (LTD)	0 0 0	0 0 0	0 0 0	5 0 0	4 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
TOT BASE STK LVL (FULL)	0 0 0	0 0 0	0 0 5	5 0 0	4 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
* TOT BASE STK LVL (LTD)	0 0 0	0 0 0	0 0 5	5 0 0	4 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
DEPOT SAFETY LVL (FULL)	0 0 0	0 0 0	0 0 5	5 0 0	5 0 0	3 0 0	0 0 0	0 0 0 3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
* DEPOT SAFETY LVL (LTD)	0 0 0	0 0 0	0 0 5	5 0 0	5 0 0	3 0 0	0 0 0	0 0 0 3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
WRSK-BLSS RQMT	2 2 2	2 2 2	2 2 0	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2 2	2 2 2 0	2 2 2 2	2 2 2 2	2 2 2 2
TOTAL GROSS RQMT (FULL)	3 3 3	3 3 3	3 3 13	13 3 3	12 3 3	6 3 3	3 3 3	3 3 3 6	3 3 3 0	3 3 3 3	3 3 3 3	3 3 3 3

75% of Dec-13 TOIMDR

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1331
AS OF: 31 DEC 13
PRGM BEG: 0803

SGM: 5945 01 568 1990 FJ

PART NUMBER: 160D145279-29
CAGE: 26512
ITEM NAME: MISC RELAY BOX

ALC: OO
ES: AKN
IMS: A8F
PMS:

ERRC: P
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 1
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SPTY LVL EXCL:

BASE RPR CYCLE DAYS: 3
OIM DEP RPR CYCLE DAYS: 37
NJR DEP RPR CYCLE DAYS: 28
CONDITION X ASSET: 0

UNIT PRICE FCST: 6,317.80
UNIT REPAIR COST: 1,268
UNIT REPAIR MANHOURS: 0

SOR	OC	OO	SA	SM	WR	CT
%	0	0	0	0	0	0

SOR	DM	OT	UN
%	0	100	0

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
2674	2513	1261	1289	1715	MTBD	3344	3344	3344	3344	3344	3344	
0.0374	0.0398	0.0793	0.0776	0.0583	TOT OIM DMND RATE	0.0299	0.0299	0.0299	0.0299	0.0299	0.0299	2013-12
0.0168	0.0155	0.0262	0.0303	0.0152	OIM DEP DMND RATE	0.0117	0.0117	0.0117	0.0117	0.0117	0.0117	
0.0206	0.0243	0.0531	0.0473	0.0431	OIM BASE RPR RATE	0.0182	0.0182	0.0182	0.0182	0.0182	0.0182	
0	0	0		0	BASE NRTS %	0	0	0	0	0	0	
100	100	100		100	BASE PROCESSED %	100	100	100	100	100	100	
45	39	33		26	BASE CNDMN %	39	39	39	39	39	39	
100	0	0		0	MISTR CNDMN %	100	100	100	100	100	100	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

MISC RB - 75% of CURRENT

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1331
AS OF: 31 DEC 13

SGM: 5945 01 568 1990 FJ

ALC: OO IMS: A8F RS: AKN

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	44 44 44	44 44 44	44 44 44	30 44 44	44 44 44	44 44 44	44 44 44	44 44 44 44	44 44 44 0	44 44 44 44	44 44 44 44	44 44 44 44
OIM OPERATING RQMT	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1 1	1 1 1 0	1 1 1 1	1 1 1 1	1 1 1 1
BASE SFTY LVL-2 (FULL)	0 0 0	0 0 0	0 0 0	6 0 0	4 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
* BASE SFTY LVL-2 (LTD)	0 0 0	0 0 0	0 0 0	6 0 0	4 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
TOT BASE STK LVL (FULL)	0 0 0	0 0 0	0 0 6	6 0 0	4 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
* TOT BASE STK LVL (LTD)	0 0 0	0 0 0	0 0 6	6 0 0	4 0 0	0 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
DEPOT SAFETY LVL (FULL)	0 0 0	0 0 0	0 0 5	3 0 0	5 0 0	3 0 0	0 0 0	0 0 0 3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
* DEPOT SAFETY LVL (LTD)	0 0 0	0 0 0	0 0 5	3 0 0	5 0 0	3 0 0	0 0 0	0 0 0 3	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
WRSK-BLSS RQMT	2 2 2	2 2 2	2 2 0	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2 2	2 2 2 0	2 2 2 2	2 2 2 2	2 2 2 2
TOTAL GROSS RQMT (FULL)	3 3 3	3 3 3	3 3 14	12 3 3	12 3 3	6 3 3	3 3 3	3 3 3 6	3 3 3 0	3 3 3 3	3 3 3 3	3 3 3 3

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1446
AS OF: 31 DEC 13
PRGM BEG: 0803

SGM: 5945 01 568 1990 FJ

PART NUMBER: 160D145279-29
CAGE: 26512
ITEM NAME: MISC RELAY BOX

ALC: OO
ES: AKN
IMS: A8P
PMS:

ERRC: P
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 1
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 3
OIM DEP RPR CYCLE DAYS: 37
NJR DEP RPR CYCLE DAYS: 28
CONDITION X ASSET: 0

UNIT PRICE FCST: 6,317.80
UNIT REPAIR COST: 1,268
UNIT REPAIR MANHOURS: 0

SOR	OC	OO	SA	SM	WR	CT
%	0	0	0	0	0	0

SOR	DM	OT	UN
%	0	100	0

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
2674	2513	1261	1289	1715	MTBD	2008	2008	2008	2008	2008	2008	
0.0374	0.0398	0.0793	0.0776	0.0583	TOT OIM DMND RATE	0.0498	0.0498	0.0498	0.0498	0.0498	0.0498	2013-12
0.0168	0.0155	0.0262	0.0303	0.0152	OIM DEP DMND RATE	0.0194	0.0194	0.0194	0.0194	0.0194	0.0194	
0.0206	0.0243	0.0531	0.0473	0.0431	OIM BASE RPR RATE	0.0304	0.0304	0.0304	0.0304	0.0304	0.0304	
0	0	0		0	BASE NRTS %	0	0	0	0	0	0	
100	100	100		100	BASE PROCESSED %	100	100	100	100	100	100	
45	39	33		26	BASE CNDMN %	39	39	39	39	39	39	
100	0	0		0	MISTR CNDMN %	100	100	100	100	100	100	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

MISC RB - 1.25% of CURRENT

125% of Dec-13 TOIMDR

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

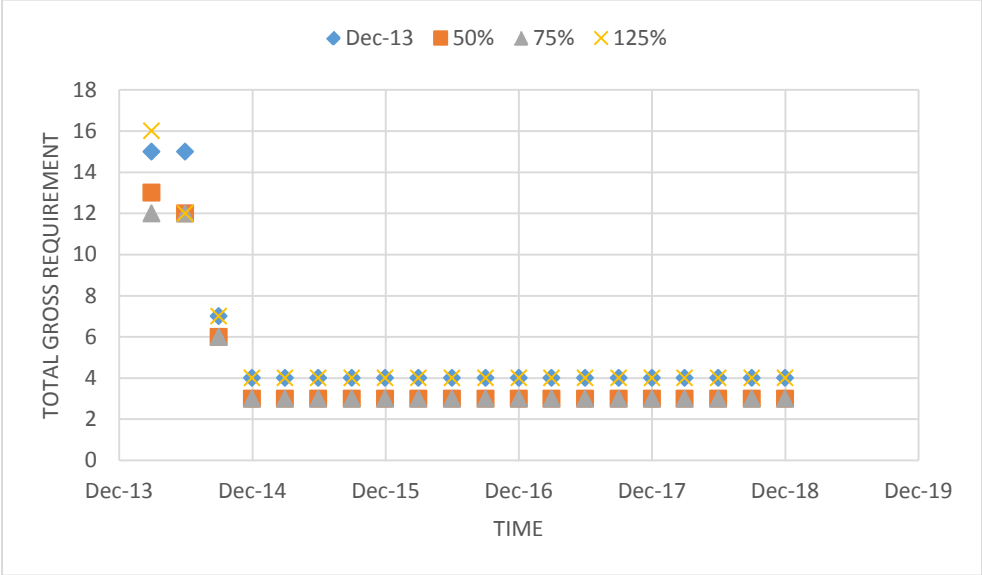
CUR: 10 APR 14 1446
AS OF: 31 DEC 13

SGM: 5945 01 568 1990 FJ

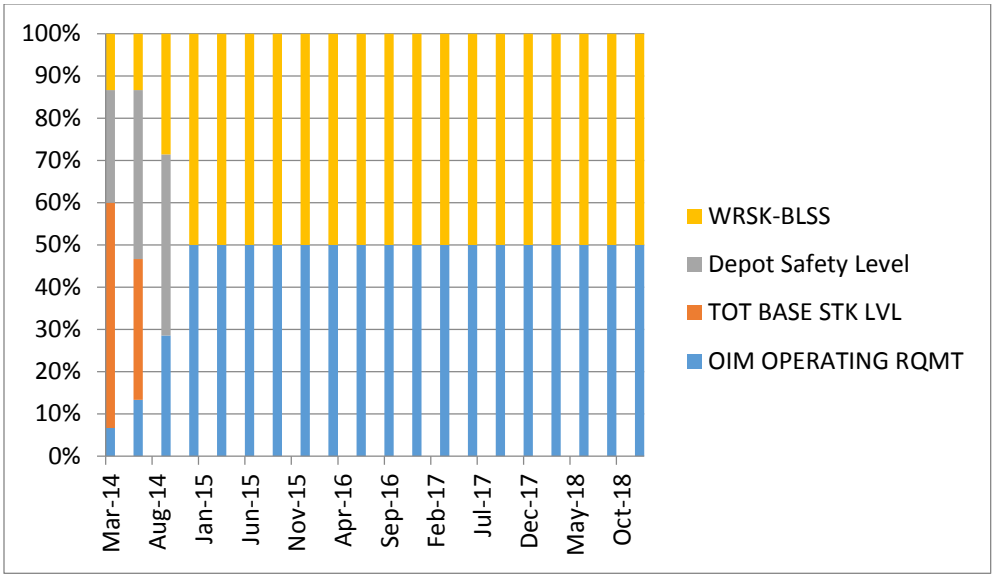
ALC: OO IMS: A8F ES: AKN

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	44 44 44	44 44 44	44 44 44	30 44 44	44 44 44	44 44 44	44 44 44	44 44 44	44 44 0	44 44 44	44 44 44	44 44 44
OIM OPERATING RQMT	2 2 2	2 2 2	2 2 2	1 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 0	2 2 2	2 2 2	2 2 2
BASE SFTY LVL-2 (FULL)	0 0 0	0 0 0	0 0 0	8 0 0	6 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
* BASE SFTY LVL-2 (LTD)	0 0 0	0 0 0	0 0 0	8 0 0	6 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
TOT BASE STK LVL (FULL)	0 0 0	0 0 0	0 0 8	8 0 0	6 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
* TOT BASE STK LVL (LTD)	0 0 0	0 0 0	0 0 8	8 0 0	6 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
DEPOT SAFETY LVL (FULL)	0 0 0	0 0 0	0 0 5	5 0 0	2 0 0	3 0 0	0 0 0	0 0 3	0 0 0	0 0 0	0 0 0	0 0 0
* DEPOT SAFETY LVL (LTD)	0 0 0	0 0 0	0 0 5	5 0 0	2 0 0	3 0 0	0 0 0	0 0 3	0 0 0	0 0 0	0 0 0	0 0 0
WRSK-BLSS RQMT	2 2 2	2 2 2	2 2 0	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 0	2 2 2	2 2 2	2 2 2
TOTAL GROSS RQMT (FULL)	4 4 4	4 4 4	4 4 17	16 4 4	12 4 4	7 4 4	4 4 4	4 4 7	4 4 0	4 4 4	4 4 4	4 4 4

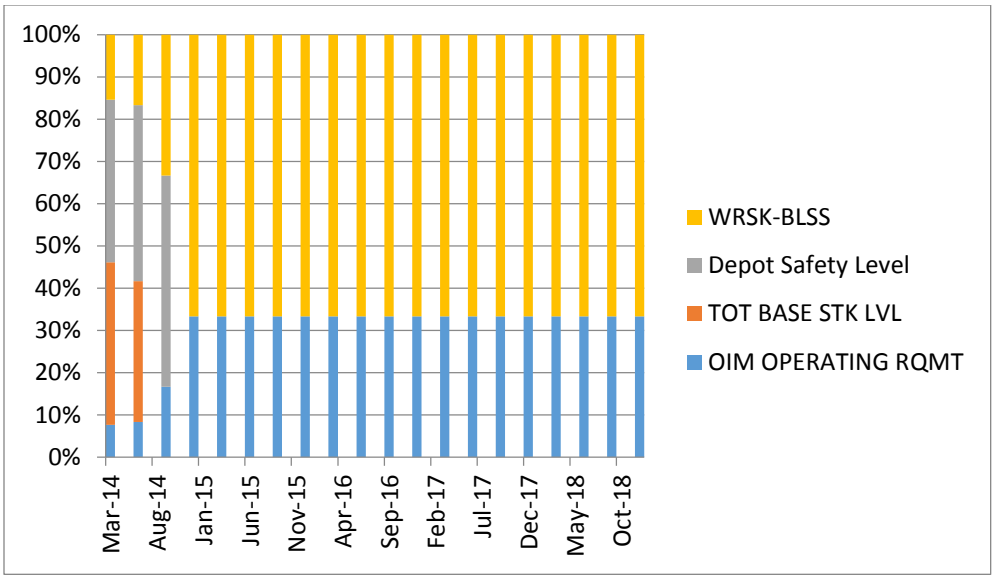
Appendix J: MISC RB Output Graphs



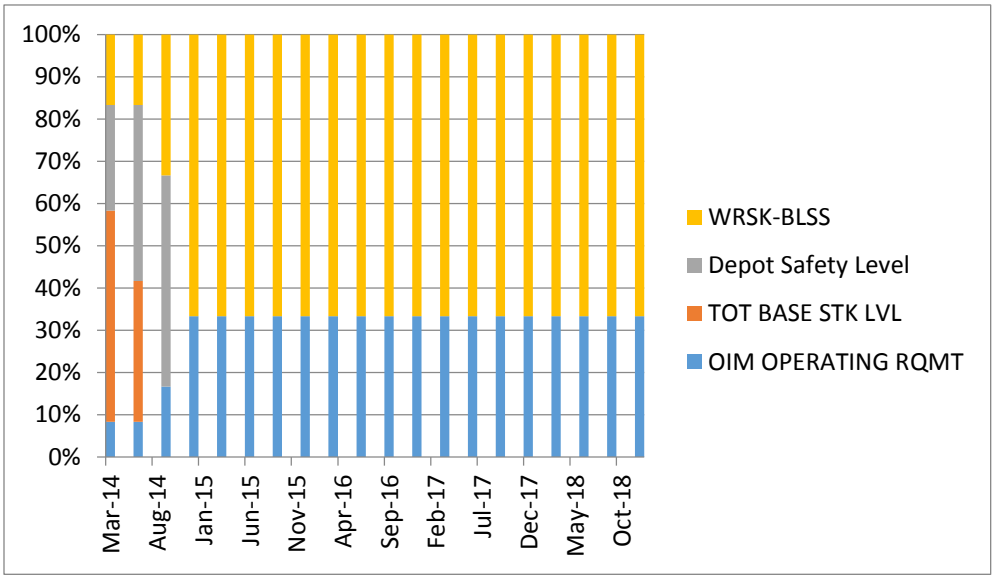
MISC RB Time vs Total Gross Requirement



MISC RB Dec-13 TOIMDR Requirements as percentage of Total Gross Requirements

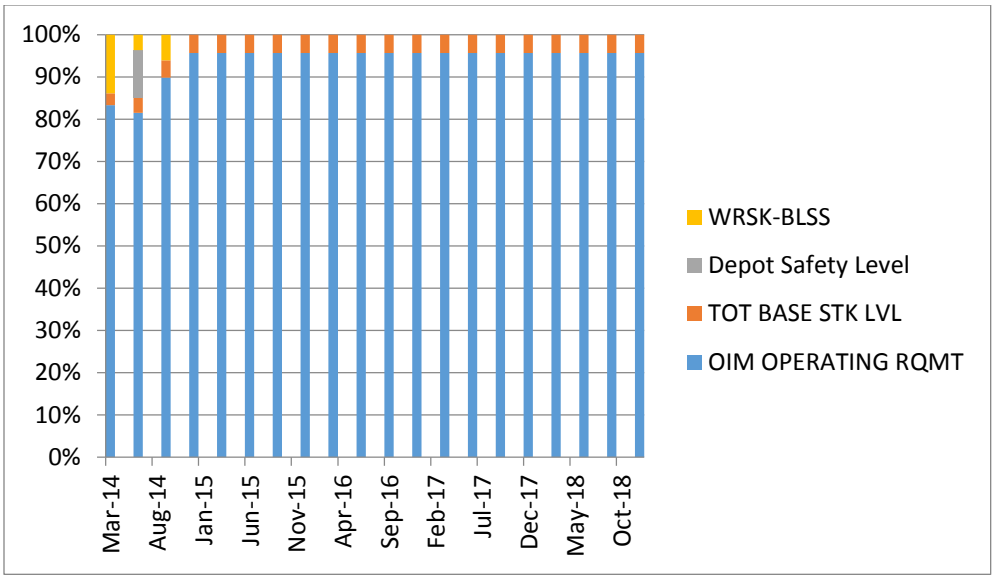


MISC RB 50 % Dec-13 TOIMDR Requirements as percentage of Total Gross Requirements

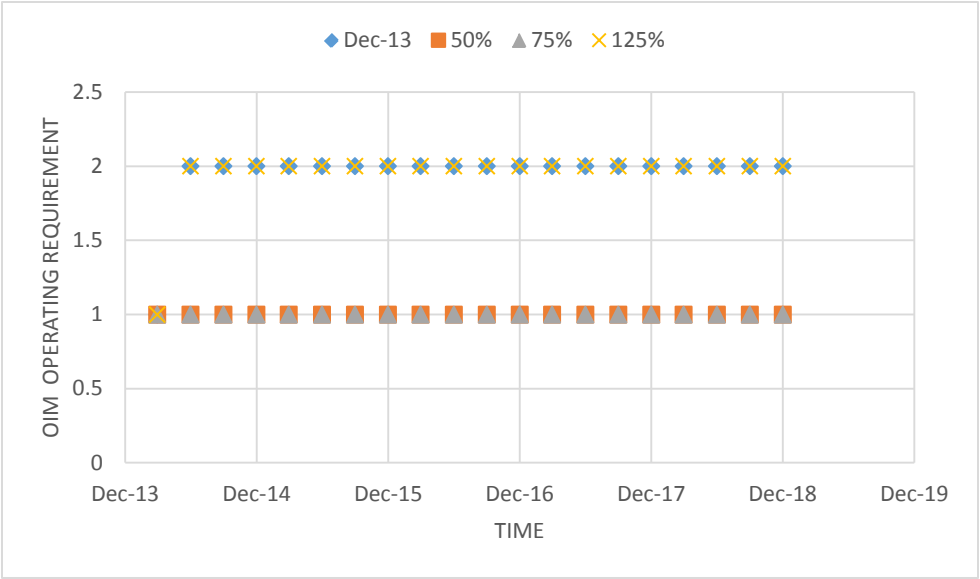


MISC RB 75 % Dec-13 TOIMDR Requirements as percentage of Total Gross

Requirements



MISC RB 125 % Dec-13 TOIMDR Requirements as percentage of Total Gross Requirements



MISC RB Future Program vs OIM OPERATING RQMT

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1331
AS OF: 31 DEC 13
PRGM BEG: 0906

SGM: 6110 01 570 6859 FJ

PART NUMBER: 160D145265-17
CAGE: 26512
ITEM NAME: FERB

ALC: OO
ES: KKP
IMS: KWG
PMS: KWG

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: AAA
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 3
OIM DEP RPR CYCLE DAYS: 26
NJR DEP RPR CYCLE DAYS: 18
CONDITION X ASSET: 0

UNIT PRICE FCST: 5,189.53
UNIT REPAIR COST: 3,198
UNIT REPAIR MANHOURS: 15

SOR	OC	OO	SA	SM	WR	CT
%	0	100	0	0	0	0
SOR	DM	OT	UN			
%	0	0	0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
1025	1042	1181	0	1209	MTBD	1042	1042	1042	1042	1042	1042	
0.0976	0.0960	0.0847	0.0000	0.0827	TOT OIM DMND RATE	0.0960	0.0960	0.0960	0.0960	0.0960	0.0960	
0.0273	0.0269	0.0271	0.0000	0.0256	OIM DEP DMND RATE	0.0269	0.0269	0.0269	0.0269	0.0269	0.0269	
0.0703	0.0691	0.0576	0.0000	0.0571	OIM BASE RPR RATE	0.0691	0.0691	0.0691	0.0691	0.0691	0.0691	
28	28	32		31	BASE NRTS %	28	28	28	28	28	28	
72	72	68		69	BASE PROCESSED %	72	72	72	72	72	72	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
10	14	13		9	MISTR CNDMN %	14	14	14	14	14	14	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

Fuel + Engine Relay Box (FERB) – CURRENT

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

CUR: 10 APR 14 1331
AS OF: 31 DEC 13
PRGM BEG: 0906

SGM: 6110 01 570 6859 FJ

* PAST USAGE HISTORY - SUBGROUP MASTER LEVEL *

QTRS 12-9 MAR-11	JUN-11	SEP-11	DEC-11	TYPE USAGE	QTRS 8-1 MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13	8 QTR TOTAL
5	4	8	15	BASE RTS	27	16	21	17	15	9	17	10	132
6	8	1	7	BASE NRTS	8	6	7	6	4	10	6	4	51
0	0	0	0	BASE CNDMN	0	0	0	0	0	0	0	0	0
11	12	9	22	BASE REPGENS	35	22	28	23	19	19	23	14	183
0	0	0	0	DEP REPGENS	0	0	0	0	0	0	0	0	0
5	5	3	10	MISTR RPR	3	4	2	0	10	5	4	8	36
0	0	0	0	MISTR CNDMN	1	1	0	0	0	2	0	2	6
0	0	0	0	DEP CNDM TOT	1	2	0	0	0	2	0	2	7

QUARTER OF LAST DEMAND 1312

* * * * * * * * * * * * * * * * * * * TOTAL ITEM PAST INSTALLED PROGRAM - SUBGROUP MASTER TOTAL * * * * * * * * * * * * * * * * * * *

QTRS 12-9 MAR-11	JUN-11	SEP-11	DEC-11	TYPE PROGRAM	QTRS 8-1 MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13	8 QTR TOTAL
120	284	270	235	OIM	225	287	265	245	222	239	238	186	1907
0	0	0	0	PDM	0	0	0	0	0	0	0	0	0
0	0	0	0	ENG OH	0	0	0	0	0	0	0	0	0
0	0	0	0	NHA MISTR	0	0	0	0	0	0	0	0	0

* PAST FACTORS *

RATES AND PERCENTS		MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13
TOT OIM DMND RATE	QTR	0.1556	0.0767	0.1057	0.0939	0.0856	0.0795	0.0966	0.0753
TOT OIM DMND RATE	MAH	0.0670	0.0619	0.0632	0.0829	0.0821	0.0865	0.0976	0.0960
BASE NRTS %	QTR	23	27	25	26	21	53	26	29
BASE NRTS %	MAH	32	33	33	29	26	26	28	28
BASE CNDMN %	QTR	0	0	0	0	0	0	0	0
BASE CNDMN %	MAH	0	0	0	0	0	0	0	0
MISTR CNDMN %	QTR	25	20	0	0	0	29	0	20
MISTR CNDMN %	MAH	6	5	5	6	5	10	10	14
PDM JR CNDMN %	QTR	0	0	0	0	0	0	0	0
PDM JR CNDMN %	MAH	0	0	0	0	0	0	0	0
PDM NJR REPL %	QTR	0	0	0	0	0	0	0	0
PDM NJR REPL %	MAH	0	0	0	0	0	0	0	0
PDM NJR PRGM %	QTR	0	0	0	0	0	0	0	0
PDM NJR PRGM %	MAH	0	0	0	0	0	0	0	0
EOH JR CNDMN %	QTR	0	0	0	0	0	0	0	0
EOH JR CNDMN %	MAH	0	0	0	0	0	0	0	0
EOH NJR REPL %	QTR	0	0	0	0	0	0	0	0
EOH NJR REPL %	MAH	0	0	0	0	0	0	0	0
EOH NJR PRGM %	QTR	0	0	0	0	0	0	0	0
EOH NJR PRGM %	MAH	0	0	0	0	0	0	0	0
NHA MISTR JR CNDMN	QTR	0	0	0	0	0	0	0	0
NHA MISTR JR CNDMN	MAH	0	0	0	0	0	0	0	0

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

CUR: 10 APR 14 1331
AS OF: 31 DEC 13

SGM: 6110 01 570 6859 FJ

ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	929 1337 1337	985 1337 1337	1034 1337 1337	148 1083 1337	284 1132 1337	420 1181 1337	506 1220 1337	591 1259 1337 873	676 1298 1337 0	761 1337 1337 1034	817 1337 1337 1220	873 1337 1337 1337
OIM OPERATING RQMT	89 128 128	95 128 128	99 128 128	14 104 128	27 109 128	40 113 128	49 117 128	57 121 128 84	65 125 128 0	73 128 128 99	78 128 128 117	84 128 128 128
OIM BASE R-C RQMT	0 0 0	0 0 0	0 0 0	1 0 0	1 0 0	1 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
BASE SFTY LVL-2 (FULL)	9 0 0	9 0 0	9 0 0	8 9 0	8 9 0	8 9 0	9 9 0	9 9 0 9	9 9 0 0	9 9 0 9	9 0 0 9	9 0 0 0
* BASE SFTY LVL-2 (LTD)	9 0 0	9 0 0	9 0 0	8 9 0	8 9 0	8 9 0	9 9 0	9 9 0 9	9 9 0 0	9 9 0 9	9 0 0 9	9 0 0 0
TOT BASE STK LVL (FULL)	9 0 0	9 0 0	9 0 9	9 9 0	9 9 0	9 9 0	9 9 0	9 9 0 9	9 9 0 0	9 9 0 9	9 0 0 9	9 0 0 0
* TOT BASE STK LVL (LTD)	9 0 0	9 0 0	9 0 9	9 9 0	9 9 0	9 9 0	9 9 0	9 9 0 9	9 9 0 0	9 9 0 9	9 0 0 9	9 0 0 0
DEPOT SAFETY LVL (FULL)	2 5 0	1 3 0	1 3 6	1 2 3	2 1 3	3 2 2	2 1 0	2 1 0 1	2 1 0 0	2 1 0 1	1 6 0 1	1 5 0 6
* DEPOT SAFETY LVL (LTD)	2 5 0	1 3 0	1 3 6	1 2 3	2 1 3	3 2 2	2 1 0	2 1 0 1	2 1 0 0	2 1 0 1	1 6 0 1	1 5 0 6
WRSK-BLSS RQMT	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9 9	9 9 9 0	9 9 9 9	9 9 9 9	9 9 9 9

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

SGM: 6110 01 570 6859 FJ

ALC: OO IMS: KWG ES: KKP

AD200.AIDAX88
CUR: 10 APR 14 133
AS OF: 31 DEC 13

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OWRM RQMT (FULL)	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2 2	2 2 2 0	2 2 2 2	2 2 2 2	2 2 2 2
* OWRM RQMT (LTD)	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2 2	2 2 2 0	2 2 2 2	2 2 2 2	2 2 2 2
TOTAL GROSS RQMT (FULL)	111 144 139	116 142 139	120 142 154	35 126 142	49 130 142	63 135 141	71 138 139	79 142 139 105	87 146 139 0	95 149 139 120	99 145 139 138	105 144 139 145
* TOTAL GROSS RQMT (LTD)	111 144 139	116 142 139	120 142 154	35 126 142	49 130 142	63 135 141	71 138 139	79 142 139 105	87 146 139 0	95 149 139 120	99 145 139 138	105 144 139 145
SVC ASSETS	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23 23	23 23 23 0	23 23 23 23	23 23 23 23	23 23 23 23
TOTAL SVC	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23 23	23 23 23 0	23 23 23 23	23 23 23 23	23 23 23 23
1ST SHORT (FULL)	88 121 116	93 119 116	97 119 131	12 103 119	26 107 119	40 112 118	48 115 116	56 119 116 82	64 123 116 0	72 126 116 97	76 122 116 115	82 121 116 122
* 1ST SHORT (LTD)	88 121 116	93 119 116	97 119 131	12 103 119	26 107 119	40 112 118	48 115 116	56 119 116 82	64 123 116 0	72 126 116 97	76 122 116 115	82 121 116 122
BASE PROCESSED	64 92 92	68 92 92	71 92 92	10 75 92	19 78 92	29 81 92	35 84 92	41 87 92 60	47 90 92 0	53 92 92 71	56 92 92 84	60 92 92 92
BASE REPAIR	64 92 92	68 92 92	71 92 92	10 75 92	19 78 92	29 81 92	35 84 92	41 87 92 60	47 90 92 0	53 92 92 71	56 92 92 84	60 92 92 92

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REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1331
AS OF: 31 DEC 13
PRGM BEG: 0906

SGM: 6110 01 570 6859 FJ

PART NUMBER: 160D145265-17
CAGE: 26512
ITEM NAME: FERB

ALC: OO
ES: KKP
IMS: KWG
PMS: KWG

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 3
OIM DEP RPR CYCLE DAYS: 26
NJR DEP RPR CYCLE DAYS: 18
CONDITION X ASSET: 0

UNIT PRICE FCST: 5,189.53
UNIT REPAIR COST: 3,198
UNIT REPAIR MANHOURS: 15

SOR %	OC	OO	SA	SM	WR	CT
	0	100	0	0	0	0
SOR %	DM	OT	UN			
	0	0	0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
1025	1042	1181	0	1209	MTBD	2083	2083	2083	2083	2083	2083	
0.0976	0.0960	0.0847	0.0000	0.0827	TOT OIM DMND RATE	0.0480	0.0480	0.0480	0.0480	0.0480	0.0480	2013-12
0.0273	0.0269	0.0271	0.0000	0.0256	OIM DEP DMND RATE	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	
0.0703	0.0691	0.0576	0.0000	0.0571	OIM BASE RPR RATE	0.0346	0.0346	0.0346	0.0346	0.0346	0.0346	
28	28	32		31	BASE NRTS %	28	28	28	28	28	28	
72	72	68		69	BASE PROCESSED %	72	72	72	72	72	72	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
10	14	13		9	MISTR CNDMN %	14	14	14	14	14	14	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

FERB - 50% of CURRENT

50% of Dec-13 TOIMDR

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

CUR: 10 APR 14 1331
AS OF: 31 DEC 13

SGM: 6110 01 570 6859 FJ

ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	929 1337 1337	985 1337 1337	1034 1337 1337	148 1083 1337	284 1132 1337	420 1181 1337	506 1220 1337	591 1259 1337 873	676 1298 1337 0	761 1337 1337 1034	817 1337 1337 1220	873 1337 1337 1337
OIM OPERATING RQMT	45 64 64	47 64 64	50 64 64	7 52 64	14 54 64	20 57 64	24 59 64	28 60 64 42	32 62 64 0	37 64 64 50	39 64 64 59	42 64 64 64
BASE SFTY LVL-2 (FULL)	9 0 0	9 0 0	9 0 0	9 9 0	9 9 0	9 9 0	9 9 0	9 9 0 9	9 9 0 0	9 9 0 9	9 0 0 9	9 0 0 0
* BASE SFTY LVL-2 (LTD)	9 0 0	9 0 0	9 0 0	9 9 0	9 9 0	9 9 0	9 9 0	9 9 0 9	9 9 0 0	9 9 0 9	9 0 0 9	9 0 0 0
TOT BASE STK LVL (FULL)	9 0 0	9 0 0	9 0 9	9 9 0	9 9 0	9 9 0	9 9 0	9 9 0 9	9 9 0 0	9 9 0 9	9 0 0 9	9 0 0 0
* TOT BASE STK LVL (LTD)	9 0 0	9 0 0	9 0 9	9 9 0	9 9 0	9 9 0	9 9 0	9 9 0 9	9 9 0 0	9 9 0 9	9 0 0 9	9 0 0 0
DEPOT SAFETY LVL (FULL)	2 3 0	2 3 0	2 3 3	1 2 2	1 1 2	1 2 2	1 2 0	1 1 0 2	1 1 0 0	2 2 0 2	2 3 0 2	2 3 0 3
* DEPOT SAFETY LVL (LTD)	2 3 0	2 3 0	2 3 3	1 2 2	1 1 2	1 2 2	1 2 0	1 1 0 2	1 1 0 0	2 2 0 2	2 3 0 2	2 3 0 3
WRSK-BLSS RQMT	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9 9	9 9 9 0	9 9 9 9	9 9 9 9	9 9 9 9
OWRM RQMT (FULL)	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1 1	1 1 1 0	1 1 1 1	1 1 1 1	1 1 1 1

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

SGM: 6110 01 570 6859 FJ

ALC: OO IMS: KWG ES: KKP

AD200.AIDAX88I
CUR: 10 APR 14 1331
AS OF: 31 DEC 13

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
* OWRM RQMT (LTD)	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1 1	1 1 1 0	1 1 1 1	1 1 1 1	1 1 1 1
TOTAL GROSS RQMT (FULL)	66 77 74	68 77 74	71 77 86	27 73 76	34 74 76	40 78 76	44 80 74	48 80 74 63	52 82 74 0	58 85 74 71	60 77 74 80	63 77 74 77
* TOTAL GROSS RQMT (LTD)	66 77 74	68 77 74	71 77 86	27 73 76	34 74 76	40 78 76	44 80 74	48 80 74 63	52 82 74 0	58 85 74 71	60 77 74 80	63 77 74 77
SVC ASSETS	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23 23	23 23 23 0	23 23 23 23	23 23 23 23	23 23 23 23
TOTAL SVC	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23 23	23 23 23 0	23 23 23 23	23 23 23 23	23 23 23 23
1ST SHORT (FULL)	43 54 51	45 54 51	48 54 63	4 50 53	11 51 53	17 55 53	21 57 51	25 57 51 40	29 59 51 0	35 62 51 48	37 54 51 57	40 54 51 54
* 1ST SHORT (LTD)	43 54 51	45 54 51	48 54 63	4 50 53	11 51 53	17 55 53	21 57 51	25 57 51 40	29 59 51 0	35 62 51 48	37 54 51 57	40 54 51 54
BASE PROCESSED	32 46 46	34 46 46	36 46 46	5 37 46	10 39 46	14 41 46	17 42 46	20 43 46 30	23 45 46 0	27 46 46 36	28 46 46 42	30 46 46 46
BASE REPAIR	32 46 46	34 46 46	36 46 46	5 37 46	10 39 46	14 41 46	17 42 46	20 43 46 30	23 45 46 0	27 46 46 36	28 46 46 42	30 46 46 46
2ND OVER (FULL)	0 0 0	0 0 0	0 0 0	1 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0

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REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1331
AS OF: 31 DEC 13
PRGM BEG: 0906

SGM: 6110 01 570 6859 FJ

PART NUMBER: 160D145265-17
CAGE: 26512
ITEM NAME: FERB

ALC: OO
ES: KKP
IMS: KWG
PMS: KWG

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 3
OIM DEP RPR CYCLE DAYS: 26
NJR DEP RPR CYCLE DAYS: 18
CONDITION X ASSET: 0

UNIT PRICE FCST: 5,189.53
UNIT REPAIR COST: 3,198
UNIT REPAIR MANHOURS: 15

SOR %	OC	OO	SA	SM	WR	CT
	0	100	0	0	0	0
SOR %	DM	OT	UN			
	0	0	0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
1025	1042	1181	0	1209	MTBD	1389	1389	1389	1389	1389	1389	
0.0976	0.0960	0.0847	0.0000	0.0827	TOT OIM DMND RATE	0.0720	0.0720	0.0720	0.0720	0.0720	0.0720	2013-12
0.0273	0.0269	0.0271	0.0000	0.0256	OIM DEP DMND RATE	0.0202	0.0202	0.0202	0.0202	0.0202	0.0202	
0.0703	0.0691	0.0576	0.0000	0.0571	OIM BASE RPR RATE	0.0518	0.0518	0.0518	0.0518	0.0518	0.0518	
28	28	32		31	BASE NRTS %	28	28	28	28	28	28	
72	72	68		69	BASE PROCESSED %	72	72	72	72	72	72	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
10	14	13		9	MISTR CNDMN %	14	14	14	14	14	14	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

FERB - 75% of CURRENT

75% of Dec-13 TOIMDR

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1331
AS OF: 31 DEC 13

SGM: 6110 01 570 6859 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	929 1337 1337	985 1337 1337	1034 1337 1337	148 1083 1337	284 1132 1337	420 1181 1337	506 1220 1337	591 1259 1337 873	676 1298 1337 0	761 1337 1337 1034	817 1337 1337 1220	873 1337 1337 1337
OIM OPERATING RQMT	67 96 96	71 96 96	74 96 96	11 78 96	20 82 96	30 85 96	36 88 96	43 91 96 63	49 93 96 0	55 96 96 74	59 96 96 88	63 96 96 96
OIM BASE R-C RQMT	0 0 0	0 0 0	0 0 0	1 0 0	1 0 0	1 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
BASE SFTY LVL-2 (FULL)	9 0 0	9 0 0	9 0 0	8 9 0	8 9 0	8 9 0	9 9 0	9 9 0 9	9 9 0 0	9 9 0 9	9 0 0 9	9 0 0 0
* BASE SFTY LVL-2 (LTD)	9 0 0	9 0 0	9 0 0	8 9 0	8 9 0	8 9 0	9 9 0	9 9 0 9	9 9 0 0	9 9 0 9	9 0 0 9	9 0 0 0
TOT BASE STK LVL (FULL)	9 0 0	9 0 0	9 0 9	9 9 0	9 9 0	9 9 0	9 9 0	9 9 0 9	9 9 0 0	9 9 0 9	9 0 0 9	9 0 0 0
* TOT BASE STK LVL (LTD)	9 0 0	9 0 0	9 0 9	9 9 0	9 9 0	9 9 0	9 9 0	9 9 0 9	9 9 0 0	9 9 0 9	9 0 0 9	9 0 0 0
DEPOT SAFETY LVL (FULL)	3 3 0	3 3 0	2 3 5	1 2 3	1 2 3	1 2 2	1 1 0	2 2 0 2	2 2 0 0	3 2 0 2	2 5 0 1	2 4 0 5
* DEPOT SAFETY LVL (LTD)	3 3 0	3 3 0	2 3 5	1 2 3	1 2 3	1 2 2	1 1 0	2 2 0 2	2 2 0 0	3 2 0 2	2 5 0 1	2 4 0 5
WRSK-BLSS RQMT	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9 9	9 9 9 0	9 9 9 9	9 9 9 9	9 9 9 9

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

SGM: 6110 01 570 6859 FJ

ALC: OO IMS: KWG ES: KKP

AD200.AIDAX88I
CUR: 10 APR 14 1331
AS OF: 31 DEC 13

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OWRM RQMT (FULL)	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2 2	2 2 2 0	2 2 2 2	2 2 2 2	2 2 2 2
* OWRM RQMT (LTD)	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2 2	2 2 2 0	2 2 2 2	2 2 2 2	2 2 2 2
TOTAL GROSS RQMT (FULL)	90 110 107	94 110 107	96 110 121	32 100 110	41 104 110	51 107 109	57 109 107	65 113 107 85	71 115 107 0	78 118 107 96	81 112 107 109	85 111 107 112
* TOTAL GROSS RQMT (LTD)	90 110 107	94 110 107	96 110 121	32 100 110	41 104 110	51 107 109	57 109 107	65 113 107 85	71 115 107 0	78 118 107 96	81 112 107 109	85 111 107 112
SVC ASSETS	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23 23	23 23 23 0	23 23 23 23	23 23 23 23	23 23 23 23
TOTAL SVC	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23	23 23 23 23	23 23 23 0	23 23 23 23	23 23 23 23	23 23 23 23
1ST SHORT (FULL)	67 87 84	71 87 84	73 87 98	9 77 87	18 81 87	28 84 86	34 86 84	42 90 84 62	48 92 84 0	55 95 84 73	58 89 84 86	62 88 84 89
* 1ST SHORT (LTD)	67 87 84	71 87 84	73 87 98	9 77 87	18 81 87	28 84 86	34 86 84	42 90 84 62	48 92 84 0	55 95 84 73	58 89 84 86	62 88 84 89
BASE PROCESSED	48 69 69	51 69 69	53 69 69	8 56 69	14 59 69	22 61 69	26 63 69	31 66 69 45	35 67 69 0	40 69 69 53	42 69 69 63	45 69 69 69
BASE REPAIR	48 69 69	51 69 69	53 69 69	8 56 69	14 59 69	22 61 69	26 63 69	31 66 69 45	35 67 69 0	40 69 69 53	42 69 69 63	45 69 69 69

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1401
AS OF: 31 DEC 13
PRGM BEG: 0906

SGM: 6110 01 570 6859 FJ

PART NUMBER: 160D145265-17
CAGE: 26512
ITEM NAME: FERB

ALC: OO
ES: KKP
IMS: KWG
PMS: KWG

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 3
OIM DEP RPR CYCLE DAYS: 26
NJR DEP RPR CYCLE DAYS: 18
CONDITION X ASSET: 0

UNIT PRICE FCST: 5,189.53
UNIT REPAIR COST: 3,198
UNIT REPAIR MANHOURS: 15

SOR	OC	OO	SA	SM	WR	CT
%	0	100	0	0	0	0
SOR	DM	OT	UN			
%	0	0	0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
1025	1042	1181	0	1209	MTBD	833	833	833	833	833	833	
0.0976	0.0960	0.0847	0.0000	0.0827	TOT OIM DMND RATE	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200	2013-12
0.0273	0.0269	0.0271	0.0000	0.0256	OIM DEP DMND RATE	0.0336	0.0336	0.0336	0.0336	0.0336	0.0336	
0.0703	0.0691	0.0576	0.0000	0.0571	OIM BASE RPR RATE	0.0864	0.0864	0.0864	0.0864	0.0864	0.0864	
28	28	32		31	BASE NRTS %	28	28	28	28	28	28	
72	72	68		69	BASE PROCESSED %	72	72	72	72	72	72	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
10	14	13		9	MISTR CNDMN %	14	14	14	14	14	14	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

FERB - 1.25% of CURRENT

125% of Dec-13 TOIMDR

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1401
AS OF: 31 DEC 13

SGM: 6110 01 570 6859 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM				148	284	420	506	591	676	761	817	873
	929	985	1034	1083	1132	1181	1220	1259	1298	1337	1337	1337
	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337
	1337	1337	1337					873	0	1034	1220	1337
OIM OPERATING RQMT				18	34	50	61	71	81	91	98	105
	111	118	124	130	136	142	146	151	156	160	160	160
	160	160	160	160	160	160	160	160	160	160	160	160
	160	160	160					105	0	124	146	160
OIM BASE R-C RQMT				1	1	1	1	1	1	1	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					0	0	0	0	0
BASE SFTY LVL-2 (FULL)				8	8	8	8	8	8	8	9	9
	9	9	9	9	9	9	9	9	9	9	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					9	0	9	9	0
* BASE SFTY LVL-2 (LTD)				8	8	8	8	8	8	8	9	9
	9	9	9	9	9	9	9	9	9	9	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					9	0	9	9	0
TOT BASE STK LVL (FULL)				9	9	9	9	9	9	9	9	9
	9	9	9	9	9	9	9	9	9	9	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	9					9	0	9	9	0
* TOT BASE STK LVL (LTD)				9	9	9	9	9	9	9	9	9
	9	9	9	9	9	9	9	9	9	9	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	9					9	0	9	9	0
DEPOT SAFETY LVL (FULL)				2	2	2	3	1	1	1	1	1
	1	1	1	1	2	1	2	1	2	2	6	6
	6	5	3	3	3	2	0	0	0	0	0	0
	0	0	6					1	0	1	2	6
* DEPOT SAFETY LVL (LTD)				2	2	2	3	1	1	1	1	1
	1	1	1	1	2	1	2	1	2	2	6	6
	6	5	3	3	3	2	0	0	0	0	0	0
	0	0	6					1	0	1	2	6
WRSK-BLSS RQMT				9	9	9	9	9	9	9	9	9
	9	9	9	9	9	9	9	9	9	9	9	9
	9	9	9	9	9	9	9	9	9	9	9	9
	9	9	9					9	0	9	9	9

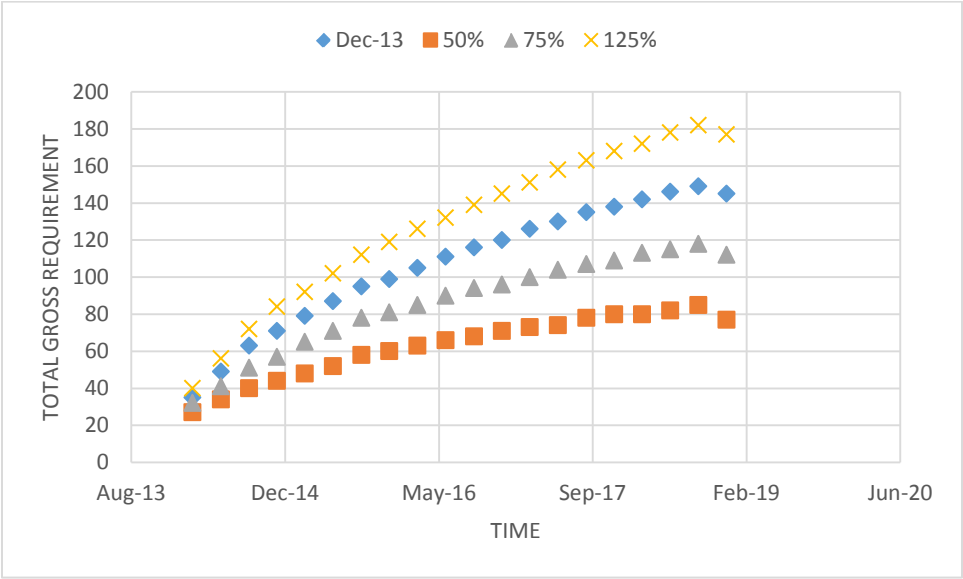
REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1401
AS OF: 31 DEC 13

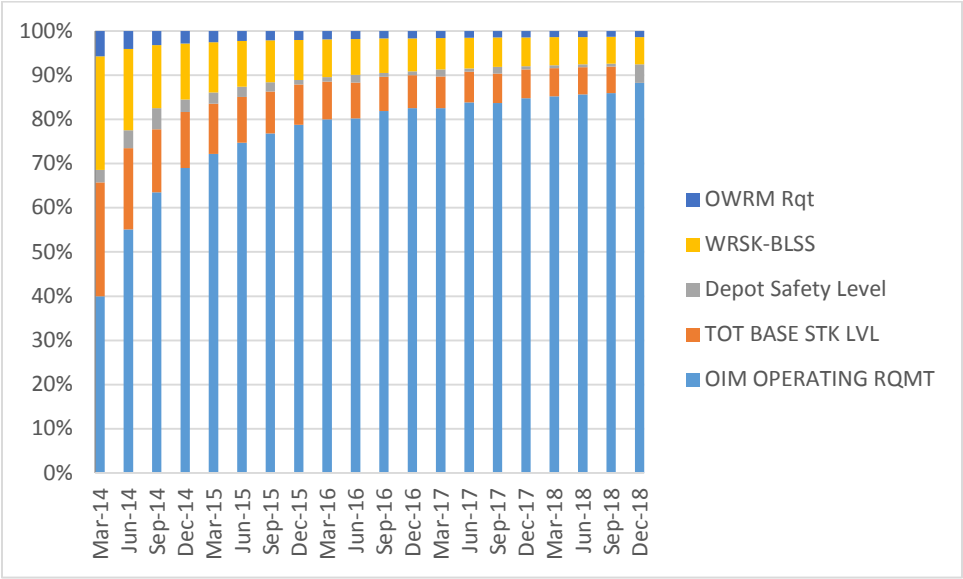
SGM: 6110 01 570 6859 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OWRM RQMT (FULL)				2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2					2	0	2	2	2
* OWRM RQMT (LTD)				2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2					2	0	2	2	2
TOTAL GROSS RQMT (FULL)				40	56	72	84	92	102	112	119	126
	132	139	145	151	158	163	168	172	178	182	177	177
	177	176	174	174	174	173	171	171	171	171	171	171
	171	171	186					126	0	145	168	177
* TOTAL GROSS RQMT (LTD)				40	56	72	84	92	102	112	119	126
	132	139	145	151	158	163	168	172	178	182	177	177
	177	176	174	174	174	173	171	171	171	171	171	171
	171	171	186					126	0	145	168	177
SVC ASSETS				23	23	23	23	23	23	23	23	23
	23	23	23	23	23	23	23	23	23	23	23	23
	23	23	23	23	23	23	23	23	23	23	23	23
	23	23	23					23	0	23	23	23
TOTAL SVC				23	23	23	23	23	23	23	23	23
	23	23	23	23	23	23	23	23	23	23	23	23
	23	23	23	23	23	23	23	23	23	23	23	23
	23	23	23					23	0	23	23	23
1ST SHORT (FULL)				17	33	49	61	69	79	89	96	103
	109	116	122	128	135	140	145	149	155	159	154	154
	154	153	151	151	151	150	148	148	148	148	148	148
	148	148	163					103	0	122	145	154
* 1ST SHORT (LTD)				17	33	49	61	69	79	89	96	103
	109	116	122	128	135	140	145	149	155	159	154	154
	154	153	151	151	151	150	148	148	148	148	148	148
	148	148	163					103	0	122	145	154
BASE PROCESSED				13	24	36	44	51	58	66	71	76
	80	85	89	94	98	102	105	109	112	115	115	115
	115	115	115	115	115	115	115	115	115	115	115	115
	115	115	115					76	0	89	105	115
BASE REPAIR				13	24	36	44	51	58	66	71	76
	80	85	89	94	98	102	105	109	112	115	115	115
	115	115	115	115	115	115	115	115	115	115	115	115
	115	115	115					76	0	89	105	115

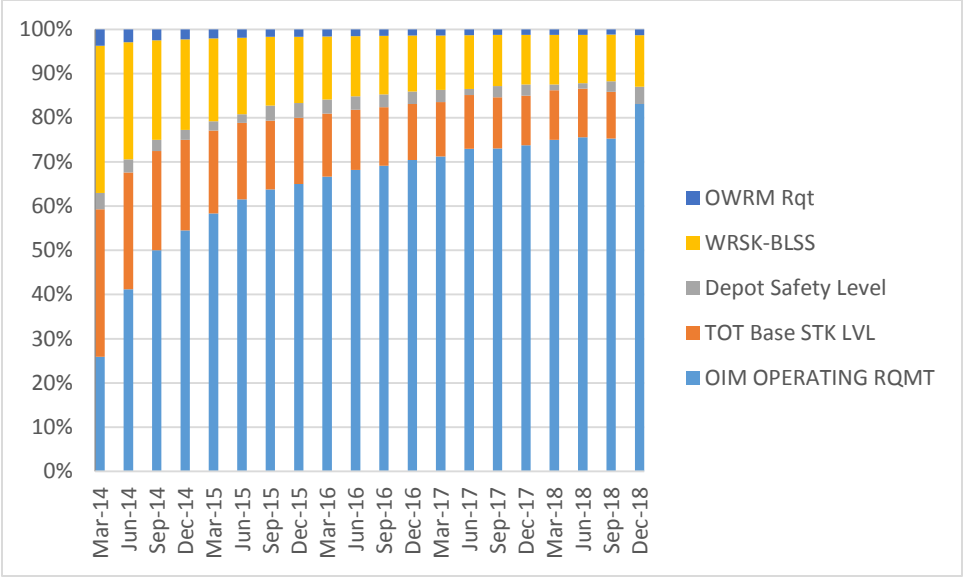
Appendix L: FERB Output Graphs



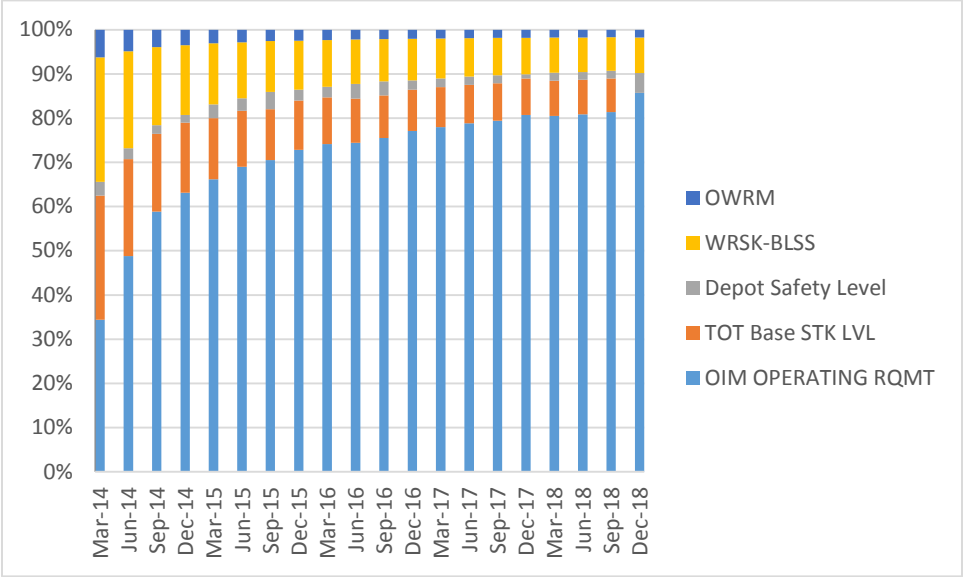
FERB Time vs Total Gross Requirement



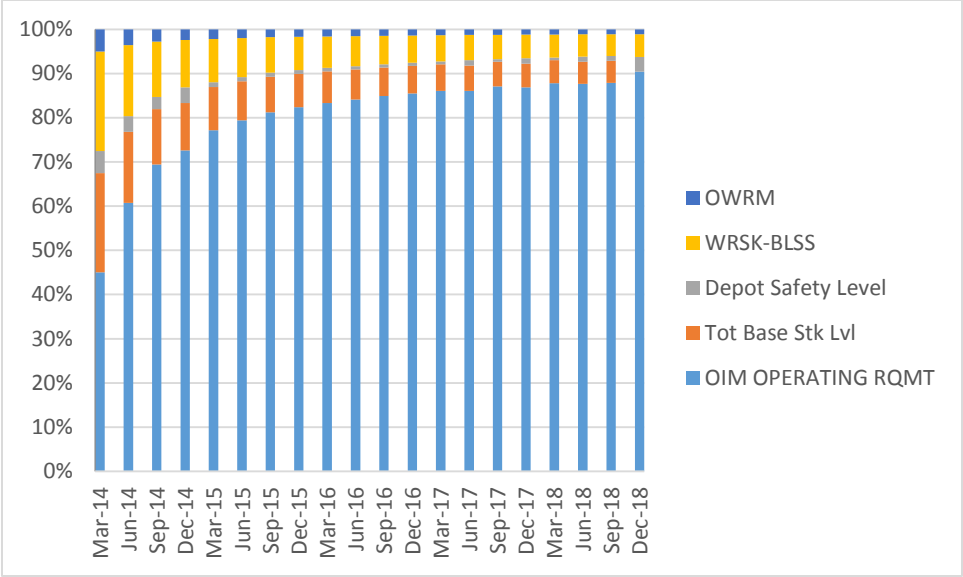
FERB Dec-13 TOIMDR Requirements as percentage of Total Gross Requirements



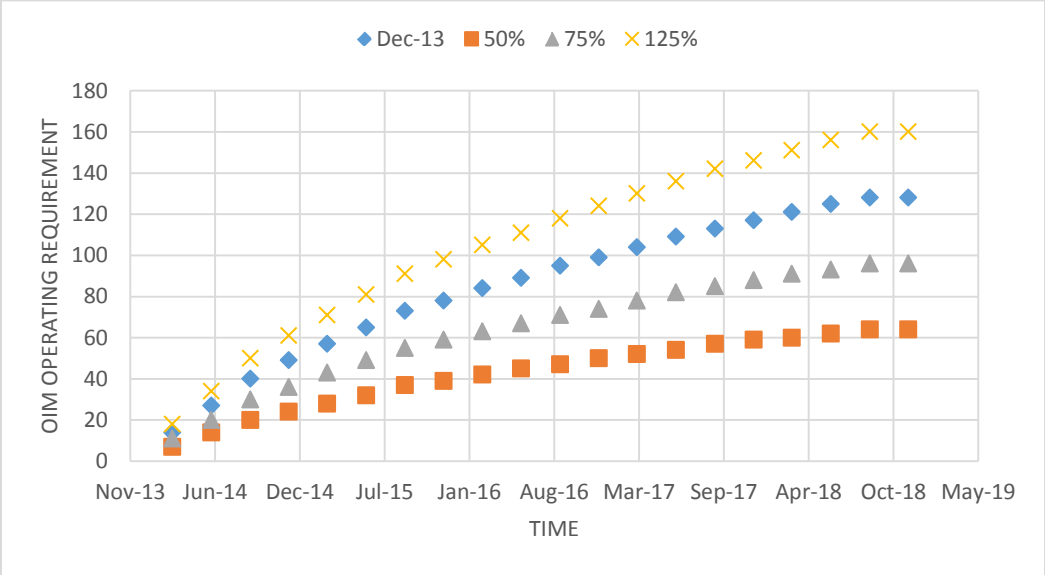
FERB 50% TOIMDR Requirements as percentage of Total Gross Requirement



FERB 75% TOIMDR Requirements as percentage of Total Gross Requirement



FERB 125% TOIMDR Requirements as percentage of Total Gross Requirement



FERB Future Program vs OIM Operating Requirement

MFCD - CURRENT

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1316
AS OF: 31 DEC 13
PRGM BEG: 0609

SGM: 1260 01 543 9004 FJ

PART NUMBER: MB359B-01
CAGE: 0WEC9
ITEM NAME: DISPLAY UNIT,MULTIF

ALC: OO
ES: KKP
IMS: KWG
PMS:

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: AAA
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 7
OIM DEP RPR CYCLE DAYS: 43
NJR DEP RPR CYCLE DAYS: 28
CONDITION X ASSET: 0

UNIT PRICE FCST: 36,801.31
UNIT REPAIR COST: 16,088
UNIT REPAIR MANHOURS: 0

SOR	OC	OO	SA	SM	WR	CT	
%	0	0	0	0	0	100	
SOR	DM	OT	UN				
%	0	0	0				

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
2105	1908	2183	0	2079	MTBD	1908	1908	1908	1908	1908	1908	
0.0475	0.0524	0.0458	0.0000	0.0481	TOT OIM DMND RATE	0.0524	0.0524	0.0524	0.0524	0.0524	0.0524	
0.0413	0.0456	0.0412	0.0000	0.0438	OIM DEP DMND RATE	0.0456	0.0456	0.0456	0.0456	0.0456	0.0456	
0.0062	0.0068	0.0046	0.0000	0.0043	OIM BASE RPR RATE	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	
87	87	90		91	BASE NRTS %	87	87	87	87	87	87	
13	13	10		9	BASE PROCESSED %	13	13	13	13	13	13	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
2	2	5		3	MISTR CNDMN %	2	2	2	2	2	2	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1316
AS OF: 31 DEC 13
PRGM BEG: 0609

SGM: 1260 01 543 9004 FJ

* PAST USAGE HISTORY - SUBGROUP MASTER LEVEL *

(--------- QTRS 12-9 ---------)					(---------- QTRS 8-1 ----------)								8 QTR
MAR-11	JUN-11	SEP-11	DEC-11	TYPE USAGE	MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13	TOTAL
1	1	1	0	BASE RTS	10	1	5	2	3	3	1	1	26
10	12	12	7	BASE NRTS	28	22	26	25	15	22	16	20	174
0	0	0	0	BASE CNDMN	0	0	0	0	0	0	0	0	0
11	13	13	7	BASE REPGENS	38	23	31	27	18	25	17	21	200
0	0	0	0	DEP REPGENS	0	0	0	0	0	0	0	0	0
0	0	15	13	MISTR RPR	55	23	21	11	31	23	21	17	202
0	0	0	0	MISTR CNDMN	0	0	0	0	3	1	1	0	5
0	0	0	0	DEP CNDM TOT	0	0	0	0	3	1	1	0	5

QUARTER OF LAST DEMAND 1312

* * * * * * * * * * * * * * * * * * * TOTAL ITEM PAST INSTALLED PROGRAM - SUBGROUP MASTER TOTAL * * * * * * * * * * * * * * * * * * *

(--------- QTRS 12-9 ---------)					(---------- QTRS 8-1 ----------)								8 QTR
MAR-11	JUN-11	SEP-11	DEC-11	TYPE PROGRAM	MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13	TOTAL
480	568	540	470	OIM	451	574	531	491	443	478	475	373	3816
0	0	0	0	PDM	0	0	0	0	0	0	0	0	0
0	0	0	0	ENG OH	0	0	0	0	0	0	0	0	0
0	0	0	0	NHA MISTR	0	0	0	0	0	0	0	0	0

* PAST FACTORS *

RATES AND PERCENTS		MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13
TOT OIM DMND RATE	QTR	0.0843	0.0401	0.0584	0.0550	0.0406	0.0523	0.0358	0.0563
TOT OIM DMND RATE	MAH	0.0325	0.0314	0.0381	0.0397	0.0418	0.0458	0.0475	0.0524
BASE NRTS %	QTR	74	96	84	93	83	88	94	95
BASE NRTS %	MAH	90	89	87	87	86	86	87	87
BASE CNDMN %	QTR	0	0	0	0	0	0	0	0
BASE CNDMN %	MAH	0	0	0	0	0	0	0	0
MISTR CNDMN %	QTR	0	0	0	0	9	4	5	0
MISTR CNDMN %	MAH	0	0	0	0	2	2	2	2
PDM JR CNDMN %	QTR	0	0	0	0	0	0	0	0
PDM JR CNDMN %	MAH	0	0	0	0	0	0	0	0
PDM NJR REPL %	QTR	0	0	0	0	0	0	0	0
PDM NJR REPL %	MAH	0	0	0	0	0	0	0	0
PDM NJR PRGM %	QTR	0	0	0	0	0	0	0	0
PDM NJR PRGM %	MAH	0	0	0	0	0	0	0	0
EOH JR CNDMN %	QTR	0	0	0	0	0	0	0	0
EOH JR CNDMN %	MAH	0	0	0	0	0	0	0	0
EOH NJR REPL %	QTR	0	0	0	0	0	0	0	0
EOH NJR REPL %	MAH	0	0	0	0	0	0	0	0
EOH NJR PRGM %	QTR	0	0	0	0	0	0	0	0
EOH NJR PRGM %	MAH	0	0	0	0	0	0	0	0
NHA MISTR JR CNDMN	QTR	0	0	0	0	0	0	0	0
NHA MISTR JR CNDMN	MAH	0	0	0	0	0	0	0	0

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1316
AS OF: 31 DEC 13

SGM: 1260 01 543 9004 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM				296	567	838	1009	1180	1351	1522	1634	1746
	1858	1970	2068	2166	2264	2362	2440	2518	2596	2674	2674	2674
	2674	2674	2674	2674	2674	2674	2674	2674	2674	2674	2674	2674
	2674	2674	2674					1180	0	1634	2068	2440
OIM OPERATING RQMT				16	30	44	53	62	71	80	86	91
	97	103	108	113	119	124	128	132	136	140	140	140
	140	140	140	140	140	140	140	140	140	140	140	140
	140	140	140					62	0	86	108	128
OIM BASE O/ST RQMT				1	1	1	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					0	0	0	0	0
OIM BASE R-C RQMT				0	0	0	1	1	1	1	1	1
	1	1	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					1	0	1	0	0
BASE SFTY LVL-2 (FULL)				8	8	8	8	8	8	8	8	8
	8	8	9	9	9	9	9	9	9	9	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					8	0	8	9	9
* BASE SFTY LVL-2 (LTD)				8	8	8	8	8	8	8	8	8
	8	8	9	9	9	9	9	9	9	9	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					8	0	8	9	9
SPECIAL LEVELS				1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	0					1	0	1	1	1
TOT BASE STK LVL (FULL)				10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	10					10	0	10	10	10
* TOT BASE STK LVL (LTD)				10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	10					10	0	10	10	10
DEPOT SAFETY LVL (FULL)				2	2	2	0	2	2	2	2	1
	2	3	2	2	3	3	2	2	2	2	2	2
	2	1	0	0	0	0	0	0	0	0	0	0
	0	0	3					2	0	2	2	2

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1316
AS OF: 31 DEC 13

SGM: 1260 01 543 9004 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
* DEPOT SAFETY LVL (LTD)				2	2	2	0	2	2	2	2	1
	2	3	2	2	3	3	2	2	2	2	2	2
	2	1	0	0	0	0	0	0	0	0	0	0
	0	0	3					2	0	2	2	2
OWRM RQMT (FULL)				35	35	35	35	35	35	35	35	35
	35	35	35	35	35	35	35	35	35	35	35	35
	35	35	35	35	35	35	35	35	35	35	35	35
	35	35	35					35	0	35	35	35
* OWRM RQMT (LTD)				35	35	35	35	35	35	35	35	35
	35	35	35	35	35	35	35	35	35	35	35	35
	35	35	35	35	35	35	35	35	35	35	35	35
	35	35	35					35	0	35	35	35
TOTAL GROSS RQMT (FULL)				63	77	91	98	109	118	127	133	137
	144	151	155	160	167	172	175	179	183	187	178	178
	178	177	176	176	176	176	176	176	176	176	176	176
	176	176	188					109	0	133	155	175
* TOTAL GROSS RQMT (LTD)				63	77	91	98	109	118	127	133	137
	144	151	155	160	167	172	175	179	183	187	178	178
	178	177	176	176	176	176	176	176	176	176	176	176
	176	176	188					109	0	133	155	175
SVC ASSETS				20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20					20	0	20	20	20
SVC DUE IN				0	0	0	0	0	4	4	4	4
	4	4	4	4	4	4	4	4	4	4	4	4
	4	4	4	4	4	4	4	4	4	4	4	4
	4	4	4					0	0	4	4	4
TOTAL SVC				20	20	20	20	20	24	24	24	24
	24	24	24	24	24	24	24	24	24	24	24	24
	24	24	24	24	24	24	24	24	24	24	24	24
	24	24	24					20	0	24	24	24
1ST SHORT (FULL)				43	57	71	78	89	94	103	109	113
	120	127	131	136	143	148	151	155	159	163	154	154
	154	153	152	152	152	152	152	152	152	152	152	152
	152	152	164					89	0	109	131	151
* 1ST SHORT (LTD)				43	57	71	78	89	94	103	109	113
	120	127	131	136	143	148	151	155	159	163	154	154
	154	153	152	152	152	152	152	152	152	152	152	152
	152	152	164					89	0	109	131	151

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REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1316
AS OF: 31 DEC 13
PRGM BEG: 0609

SGM: 1260 01 543 9004 FJ

PART NUMBER: MB359B-01
CAGE: 0WEC9
ITEM NAME: DISPLAY UNIT,MULTIF

ALC: OO
ES: KKP
IMS: KWG
PMS:

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 7
OIM DEP RPR CYCLE DAYS: 43
NJR DEP RPR CYCLE DAYS: 28
CONDITION X ASSET: 0

UNIT PRICE FCST: 36,801.31
UNIT REPAIR COST: 16,088
UNIT REPAIR MANHOURS: 0

SOR	OC	OO	SA	SM	WR	CT
%	0	0	0	0	0	100

SOR	DM	OT	UN
%	0	0	0

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
2105	1908	2183	0	2079	MTBD	3704	3704	3704	3704	3704	3704	
0.0475	0.0524	0.0458	0.0000	0.0481	TOT OIM DMND RATE	0.0270	0.0270	0.0270	0.0270	0.0270	0.0270	2013-12
0.0413	0.0456	0.0412	0.0000	0.0438	OIM DEP DMND RATE	0.0235	0.0235	0.0235	0.0235	0.0235	0.0235	
0.0062	0.0068	0.0046	0.0000	0.0043	OIM BASE RPR RATE	0.0035	0.0035	0.0035	0.0035	0.0035	0.0035	
87	87	90		91	BASE NRTS %	87	87	87	87	87	87	
13	13	10		9	BASE PROCESSED %	13	13	13	13	13	13	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
2	2	5		3	MISTR CNDMN %	2	2	2	2	2	2	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

50% of Dec-13 TOIMDR

MFCD – 50% of CURRENT

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1316
AS OF: 31 DEC 13

SGM: 1260 01 543 9004 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM				296	567	838	1009	1180	1351	1522	1634	1746
	1858	1970	2068	2166	2264	2362	2440	2518	2596	2674	2674	2674
	2674	2674	2674	2674	2674	2674	2674	2674	2674	2674	2674	2674
	2674	2674	2674					1180	0	1634	2068	2440
OIM OPERATING RQMT				8	15	23	27	32	36	41	44	47
	50	53	56	58	61	64	66	68	70	72	72	72
	72	72	72	72	72	72	72	72	72	72	72	72
	72	72	72					32	0	44	56	66
OIM BASE R-C RQMT				1	1	1	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					0	0	0	0	0
BASE SFTY LVL-2 (FULL)				8	8	8	9	9	9	9	9	9
	9	9	9	9	9	9	9	9	9	9	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					9	0	9	9	9
* BASE SFTY LVL-2 (LTD)				8	8	8	9	9	9	9	9	9
	9	9	9	9	9	9	9	9	9	9	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					9	0	9	9	9
SPECIAL LEVELS				1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	0					1	0	1	1	1
TOT BASE STK LVL (FULL)				10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	10					10	0	10	10	10
* TOT BASE STK LVL (LTD)				10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	10					10	0	10	10	10
DEPOT SAFETY LVL (FULL)				1	0	0	0	1	1	1	1	0
	1	1	1	0	1	1	0	1	1	1	2	2
	1	1	0	0	0	0	0	0	0	0	0	0
	0	0	2					1	0	1	1	0
* DEPOT SAFETY LVL (LTD)				1	0	0	0	1	1	1	1	0
	1	1	1	0	1	1	0	1	1	1	2	2
	1	1	0	0	0	0	0	0	0	0	0	0
	0	0	2					1	0	1	1	0

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1316
AS OF: 31 DEC 13

SGM: 1260 01 543 9004 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OWRM RQMT (FULL)				36	36	36	36	36	36	36	36	36
	36	36	36	36	36	36	36	36	36	36	36	36
	36	36	36	36	36	36	36	36	36	36	36	36
	36	36	36					36	0	36	36	36
* OWRM RQMT (LTD)				36	36	36	36	36	36	36	36	36
	36	36	36	36	36	36	36	36	36	36	36	36
	36	36	36	36	36	36	36	36	36	36	36	36
	36	36	36					36	0	36	36	36
TOTAL GROSS RQMT (FULL)				55	61	69	73	79	83	88	91	93
	97	100	103	104	108	111	112	115	117	119	111	111
	110	110	109	109	109	109	109	109	109	109	109	109
	109	109	120					79	0	91	103	112
* TOTAL GROSS RQMT (LTD)				55	61	69	73	79	83	88	91	93
	97	100	103	104	108	111	112	115	117	119	111	111
	110	110	109	109	109	109	109	109	109	109	109	109
	109	109	120					79	0	91	103	112
SVC ASSETS				20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20					20	0	20	20	20
SVC DUE IN				0	0	0	0	0	4	4	4	4
	4	4	4	4	4	4	4	4	4	4	4	4
	4	4	4	4	4	4	4	4	4	4	4	4
	4	4	4					0	0	4	4	4
TOTAL SVC				20	20	20	20	20	24	24	24	24
	24	24	24	24	24	24	24	24	24	24	24	24
	24	24	24	24	24	24	24	24	24	24	24	24
	24	24	24					20	0	24	24	24
1ST SHORT (FULL)				35	41	49	53	59	59	64	67	69
	73	76	79	80	84	87	88	91	93	95	87	87
	86	86	85	85	85	85	85	85	85	85	85	85
	85	85	96					59	0	67	79	88
* 1ST SHORT (LTD)				35	41	49	53	59	59	64	67	69
	73	76	79	80	84	87	88	91	93	95	87	87
	86	86	85	85	85	85	85	85	85	85	85	85
	85	85	96					59	0	67	79	88
BASE PROCESSED				1	2	3	4	4	5	5	6	6
	7	7	7	8	8	8	9	9	9	9	9	9
	9	9	9	9	9	9	9	9	9	9	9	9
	9	9	9					4	0	6	7	9

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REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1316
AS OF: 31 DEC 13
PRGM BEG: 0609

SGM: 1260 01 543 9004 FJ

PART NUMBER: MB359B-01
CAGE: 0WEC9
ITEM NAME: DISPLAY UNIT,MULTIF

ALC: OO
ES: KKP
IMS: KWG
PMS:

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 7
OIM DEP RPR CYCLE DAYS: 43
NJR DEP RPR CYCLE DAYS: 28
CONDITION X ASSET: 0

UNIT PRICE FCST: 36,801.31
UNIT REPAIR COST: 16,088
UNIT REPAIR MANHOURS: 0

SOR	OC	OO	SA	SM	WR	CT
%	0	0	0	0	0	100

SOR	DM	OT	UN
%	0	0	0

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
2105	1908	2183	0	2079	MTBD	2545	2545	2545	2545	2545	2545	
0.0475	0.0524	0.0458	0.0000	0.0481	TOT OIM DMND RATE	0.0393	0.0393	0.0393	0.0393	0.0393	0.0393	2013-12
0.0413	0.0456	0.0412	0.0000	0.0438	OIM DEP DMND RATE	0.0342	0.0342	0.0342	0.0342	0.0342	0.0342	
0.0062	0.0068	0.0046	0.0000	0.0043	OIM BASE RPR RATE	0.0051	0.0051	0.0051	0.0051	0.0051	0.0051	
87	87	90		91	BASE NRTS %	87	87	87	87	87	87	
13	13	10		9	BASE PROCESSED %	13	13	13	13	13	13	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
2	2	5		3	MISTR CNDMN %	2	2	2	2	2	2	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

75% of Dec-13 TOIMDR

MFCD – 75% of CURRENT

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1316
AS OF: 31 DEC 13

SGM: 1260 01 543 9004 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM				296	567	838	1009	1180	1351	1522	1634	1746
	1858	1970	2068	2166	2264	2362	2440	2518	2596	2674	2674	2674
	2674	2674	2674	2674	2674	2674	2674	2674	2674	2674	2674	2674
	2674	2674	2674					1180	0	1634	2068	2440
OIM OPERATING RQMT				12	22	33	40	46	53	60	64	69
	73	77	81	85	89	93	96	99	102	105	105	105
	105	105	105	105	105	105	105	105	105	105	105	105
	105	105	105					46	0	64	81	96
OIM BASE R-C RQMT				1	1	1	1	1	1	1	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					1	0	0	0	0
BASE SFTY LVL-2 (FULL)				8	8	8	8	8	8	8	9	9
	9	9	9	9	9	9	9	9	9	9	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					8	0	9	9	9
* BASE SFTY LVL-2 (LTD)				8	8	8	8	8	8	8	9	9
	9	9	9	9	9	9	9	9	9	9	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					8	0	9	9	9
SPECIAL LEVELS				1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	0					1	0	1	1	1
TOT BASE STK LVL (FULL)				10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	10					10	0	10	10	10
* TOT BASE STK LVL (LTD)				10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	10					10	0	10	10	10
DEPOT SAFETY LVL (FULL)				1	1	1	0	2	1	2	1	1
	2	1	1	2	1	2	1	1	1	1	2	2
	1	1	0	0	0	0	0	0	0	0	0	0
	0	0	2					2	0	1	1	1
* DEPOT SAFETY LVL (LTD)				1	1	1	0	2	1	2	1	1
	2	1	1	2	1	2	1	1	1	1	2	2
	1	1	0	0	0	0	0	0	0	0	0	0
	0	0	2					2	0	1	1	1

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1316
AS OF: 31 DEC 13

SGM: 1260 01 543 9004 FJ

ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OWRM RQMT (FULL)				35	35	35	35	35	35	35	35	35
	35	35	35	35	35	35	35	35	35	35	35	35
	35	35	35	35	35	35	35	35	35	35	35	35
	35	35	35					35	0	35	35	35
* OWRM RQMT (LTD)				35	35	35	35	35	35	35	35	35
	35	35	35	35	35	35	35	35	35	35	35	35
	35	35	35	35	35	35	35	35	35	35	35	35
	35	35	35					35	0	35	35	35
TOTAL GROSS RQMT (FULL)				58	68	79	85	93	99	107	110	115
	120	123	127	132	135	140	142	145	148	151	143	143
	142	142	141	141	141	141	141	141	141	141	141	141
	141	141	152					93	0	110	127	142
* TOTAL GROSS RQMT (LTD)				58	68	79	85	93	99	107	110	115
	120	123	127	132	135	140	142	145	148	151	143	143
	142	142	141	141	141	141	141	141	141	141	141	141
	141	141	152					93	0	110	127	142
SVC ASSETS				20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20					20	0	20	20	20
SVC DUE IN				0	0	0	0	0	4	4	4	4
	4	4	4	4	4	4	4	4	4	4	4	4
	4	4	4	4	4	4	4	4	4	4	4	4
	4	4	4					0	0	4	4	4
TOTAL SVC				20	20	20	20	20	24	24	24	24
	24	24	24	24	24	24	24	24	24	24	24	24
	24	24	24	24	24	24	24	24	24	24	24	24
	24	24	24					20	0	24	24	24
1ST SHORT (FULL)				38	48	59	65	73	75	83	86	91
	96	99	103	108	111	116	118	121	124	127	119	119
	118	118	117	117	117	117	117	117	117	117	117	117
	117	117	128					73	0	86	103	118
* 1ST SHORT (LTD)				38	48	59	65	73	75	83	86	91
	96	99	103	108	111	116	118	121	124	127	119	119
	118	118	117	117	117	117	117	117	117	117	117	117
	117	117	128					73	0	86	103	118
BASE PROCESSED				2	3	4	5	6	7	8	8	9
	9	10	11	11	12	12	12	13	13	14	14	14
	14	14	14	14	14	14	14	14	14	14	14	14
	14	14	14					6	0	8	11	12

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1401
AS OF: 31 DEC 13
PRGM BEG: 0609

SGM: 1260 01 543 9004 FJ

PART NUMBER: MB359B-01
CAGE: 0WEC9
ITEM NAME: DISPLAY UNIT,MULTIF

ALC: OO
ES: KKP
IMS: KWG
PMS:

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 7
OIM DEP RPR CYCLE DAYS: 43
NJR DEP RPR CYCLE DAYS: 28
CONDITION X ASSET: 0

UNIT PRICE FCST: 36,801.31
UNIT REPAIR COST: 16,088
UNIT REPAIR MANHOURS: 0

SOR	OC	OO	SA	SM	WR	CT
%	0	0	0	0	0	100

SOR	DM	OT	UN
%	0	0	0

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
2105	1908	2183	0	2079	MTBD	1527	1527	1527	1527	1527	1527	
0.0475	0.0524	0.0458	0.0000	0.0481	TOT OIM DMND RATE	0.0655	0.0655	0.0655	0.0655	0.0655	0.0655	2013-12
0.0413	0.0456	0.0412	0.0000	0.0438	OIM DEP DMND RATE	0.0570	0.0570	0.0570	0.0570	0.0570	0.0570	
0.0062	0.0068	0.0046	0.0000	0.0043	OIM BASE RPR RATE	0.0085	0.0085	0.0085	0.0085	0.0085	0.0085	
87	87	90		91	BASE NRTS %	87	87	87	87	87	87	
13	13	10		9	BASE PROCESSED %	13	13	13	13	13	13	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
2	2	5		3	MISTR CNDMN %	2	2	2	2	2	2	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

125% of Dec-13 TOIMDR

MFCD - 1.25% of CURRENT

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1401
AS OF: 31 DEC 13

SGM: 1260 01 543 9004 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM				296	567	838	1009	1180	1351	1522	1634	1746
	1858	1970	2068	2166	2264	2362	2440	2518	2596	2674	2674	2674
	2674	2674	2674	2674	2674	2674	2674	2674	2674	2674	2674	2674
	2674	2674	2674					1180	0	1634	2068	2440
OIM OPERATING RQMT				19	37	55	66	77	88	100	107	114
	122	129	135	142	148	155	160	165	170	175	175	175
	175	175	175	175	175	175	175	175	175	175	175	175
	175	175	175					77	0	107	135	160
OIM BASE O/ST RQMT				1	1	1	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					0	0	0	0	0
OIM BASE R-C RQMT				1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					1	0	1	1	0
BASE SFTY LVL-2 (FULL)				7	7	7	8	8	8	8	8	8
	8	8	8	8	8	8	9	9	9	9	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					8	0	8	8	9
* BASE SFTY LVL-2 (LTD)				7	7	7	8	8	8	8	8	8
	8	8	8	8	8	8	9	9	9	9	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					8	0	8	8	9
SPECIAL LEVELS				1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	0					1	0	1	1	1
TOT BASE STK LVL (FULL)				10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	10					10	0	10	10	10
* TOT BASE STK LVL (LTD)				10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	10					10	0	10	10	10
DEPOT SAFETY LVL (FULL)				3	2	3	2	4	3	3	2	2
	3	2	2	3	3	4	3	3	3	3	2	2
	2	1	0	0	0	0	0	0	0	0	0	0
	0	0	4					4	0	2	2	3

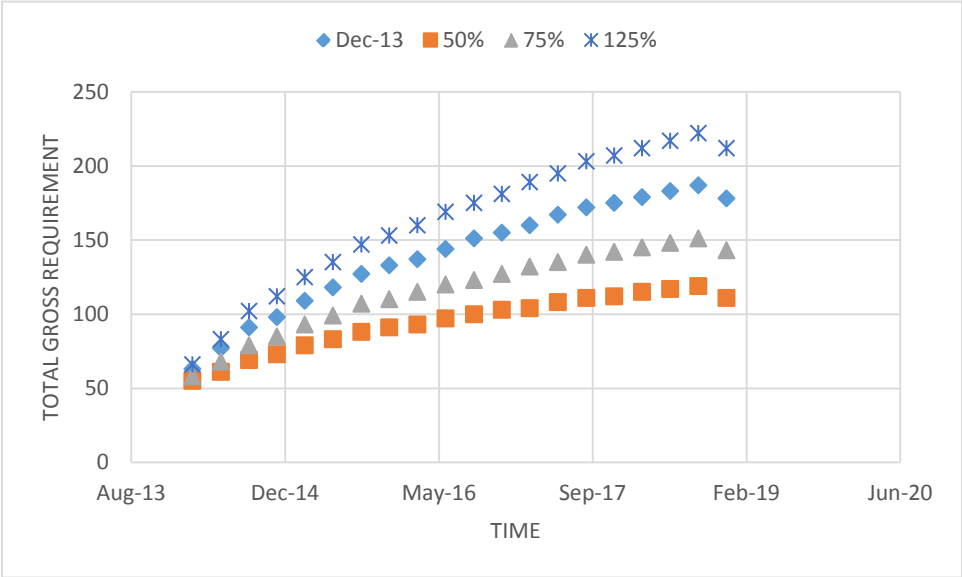
REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1401
AS OF: 31 DEC 13

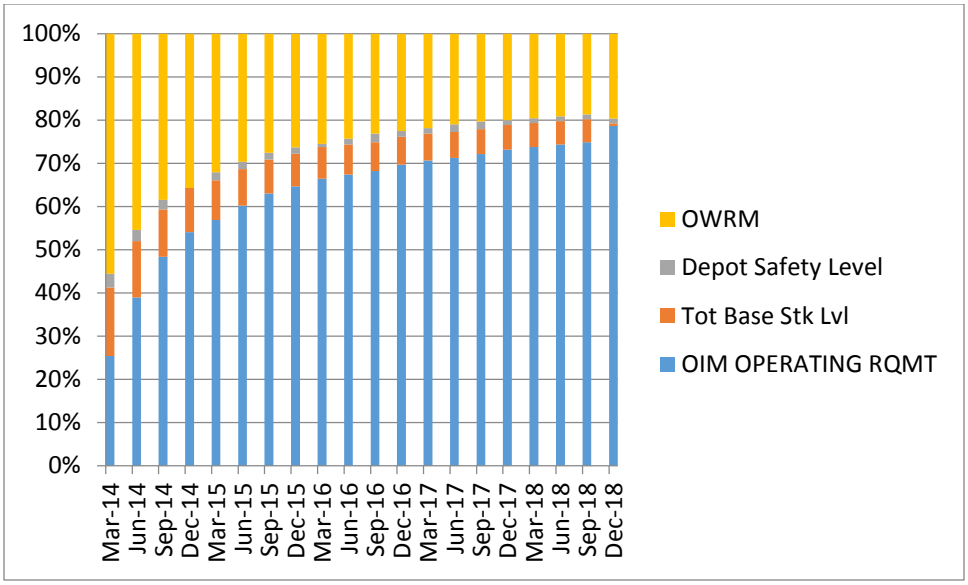
SGM: 1260 01 543 9004 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
* DEPOT SAFETY LVL (LTD)				3	2	3	2	4	3	3	2	2
	3	2	2	3	3	4	3	3	3	3	2	2
	2	1	0	0	0	0	0	0	0	0	0	0
	0	0	4					4	0	2	2	3
OWRM RQMT (FULL)				34	34	34	34	34	34	34	34	34
	34	34	34	34	34	34	34	34	34	34	34	34
	34	34	34	34	34	34	34	34	34	34	34	34
	34	34	34					34	0	34	34	34
* OWRM RQMT (LTD)				34	34	34	34	34	34	34	34	34
	34	34	34	34	34	34	34	34	34	34	34	34
	34	34	34	34	34	34	34	34	34	34	34	34
	34	34	34					34	0	34	34	34
TOTAL GROSS RQMT (FULL)				66	83	102	112	125	135	147	153	160
	169	175	181	189	195	203	207	212	217	222	212	212
	212	211	210	210	210	210	210	210	210	210	210	210
	210	210	223					125	0	153	181	207
* TOTAL GROSS RQMT (LTD)				66	83	102	112	125	135	147	153	160
	169	175	181	189	195	203	207	212	217	222	212	212
	212	211	210	210	210	210	210	210	210	210	210	210
	210	210	223					125	0	153	181	207
SVC ASSETS				20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20	20	20	20	20	20	20	20	20	20
	20	20	20					20	0	20	20	20
SVC DUE IN				0	0	0	0	0	4	4	4	4
	4	4	4	4	4	4	4	4	4	4	4	4
	4	4	4	4	4	4	4	4	4	4	4	4
	4	4	4					0	0	4	4	4
TOTAL SVC				20	20	20	20	20	24	24	24	24
	24	24	24	24	24	24	24	24	24	24	24	24
	24	24	24	24	24	24	24	24	24	24	24	24
	24	24	24					20	0	24	24	24
1ST SHORT (FULL)				46	63	82	92	105	111	123	129	136
	145	151	157	165	171	179	183	188	193	198	188	188
	188	187	186	186	186	186	186	186	186	186	186	186
	186	186	199					105	0	129	157	183
* 1ST SHORT (LTD)				46	63	82	92	105	111	123	129	136
	145	151	157	165	171	179	183	188	193	198	188	188
	188	187	186	186	186	186	186	186	186	186	186	186
	186	186	199					105	0	129	157	183

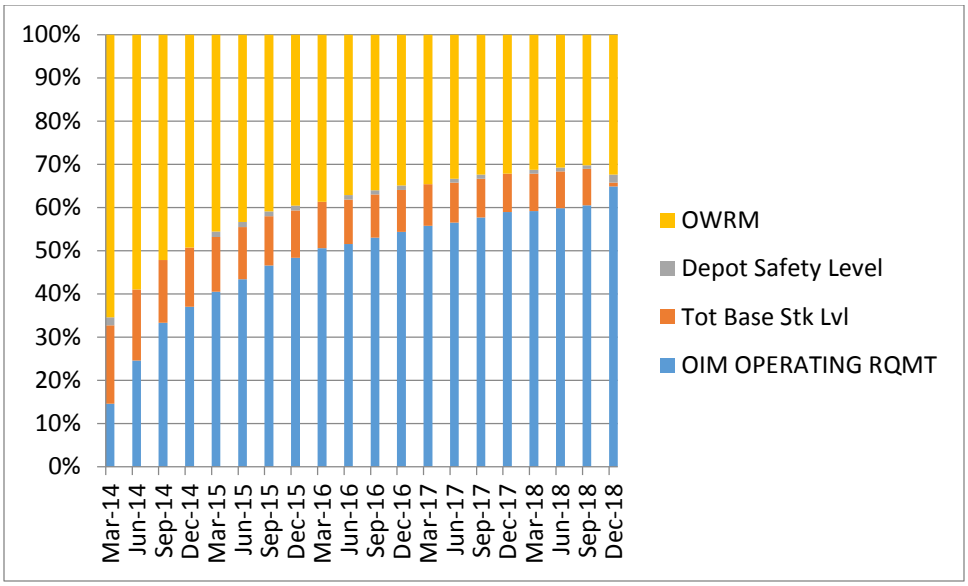
Appendix N: MFCD Output Graphs



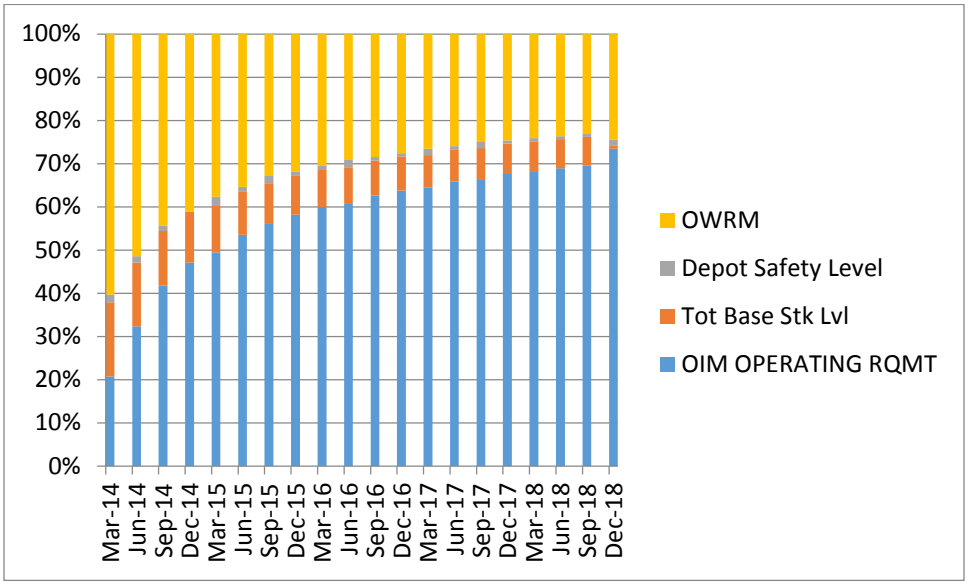
MFCD Time vs Total Gross Requirement



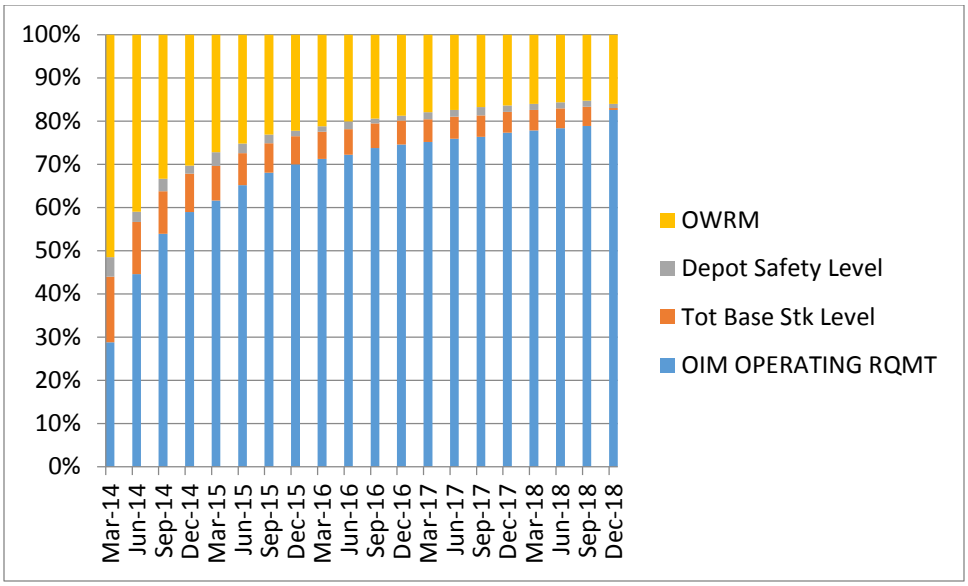
MFCD Dec-13 TOIMDR Requirements as percentage of Total Gross Requirement



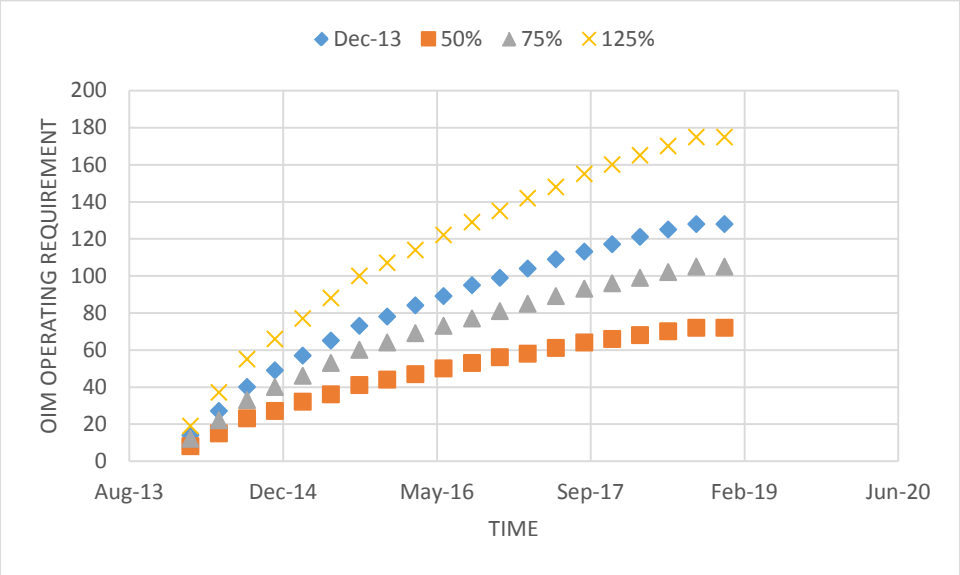
MFCD 50% TOIMDR Requirements as percentage of Total Gross Requirement



MFCD 75% TOIMDR Requirements as percentage of Total Gross Requirement



MFCD 125% TOIMDR Requirements as percentage of Total Gross Requirement



MFCD Future Program vs OIM Operating Requirement

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1316
AS OF: 31 DEC 13
PRGM BEG: 0609

SGM: 1280 01 544 0794 FJ

PART NUMBER: 08579034
CAGE: 14550
ITEM NAME: UP FRONT CONTROLLER

ALC: OO
ES: KKP
IMS: KWG
PMS:

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND: N

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 3
OIM DEP RPR CYCLE DAYS: 43
NJR DEP RPR CYCLE DAYS: 28
CONDITION X ASSET: 0

UNIT PRICE FCST: 5,840.64
UNIT REPAIR COST: 2,277
UNIT REPAIR MANHOURS: 0

SOR	OC	OO	SA	SM	WR	CT
%	0	0	0	0	0	100
SOR	DM	OT	UN			
%	0	0	0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
639	686	681	0	716	MTBD	686	686	686	686	686	686	
0.1564	0.1458	0.1469	0.0000	0.1396	TOT OIM DMND RATE	0.1458	0.1458	0.1458	0.1458	0.1458	0.1458	
0.0824	0.0765	0.0823	0.0000	0.0897	OIM DEP DMND RATE	0.0765	0.0765	0.0765	0.0765	0.0765	0.0765	
0.0740	0.0693	0.0646	0.0000	0.0499	OIM BASE RPR RATE	0.0693	0.0693	0.0693	0.0693	0.0693	0.0693	
45	52	56		62	BASE NRTS %	52	52	52	52	52	52	
55	48	44		38	BASE PROCESSED %	48	48	48	48	48	48	
14	1	0		6	BASE CNDMN %	1	1	1	1	1	1	
0	0	0		0	MISTR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

UFC – CURRENT

GE 2

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX850
CUR: 10 APR 14 1316
AS OF: 31 DEC 13
PRGM BEG: 0609

M: 1280 01 544 0794 FJ

* PAST USAGE HISTORY - SUBGROUP MASTER LEVEL *

(--------- QTRS 12-9 ---------)					(---------- QTRS 8-1 ----------)								8 QTR
MAR-11	JUN-11	SEP-11	DEC-11	TYPE USAGE	MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13	TOTAL
3	54	13	17	BASE RTS	17	16	20	22	49	5	0	3	132
34	20	0	2	BASE NRTS	16	18	14	23	31	8	25	9	144
0	4	24	21	BASE CNDMN	1	0	0	1	0	0	0	0	2
37	78	37	40	BASE REPGENS	34	34	34	46	80	13	25	12	278
1	1	0	0	DEP REPGENS	0	0	0	0	0	0	0	0	0
0	0	0	0	MISTR RPR	0	0	0	0	0	0	0	0	0
0	0	0	0	MISTR CNDMN	0	0	0	0	0	0	0	0	0
0	1	0	0	DEP CNDM TOT	0	0	0	0	0	0	0	0	0

QUARTER OF LAST DEMAND 1312

* * * * * * * * * * * * * * * * * TOTAL ITEM PAST INSTALLED PROGRAM - SUBGROUP MASTER TOTAL * * * * * * * * * * * * * * * * * *

(--------- QTRS 12-9 ---------)					(---------- QTRS 8-1 ----------)								8 QTR
MAR-11	JUN-11	SEP-11	DEC-11	TYPE PROGRAM	MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13	TOTAL
240	284	270	235	OIM	225	287	265	245	222	239	238	186	1907
0	0	0	0	PDM	0	0	0	0	0	0	0	0	0
0	0	0	0	ENG OH	0	0	0	0	0	0	0	0	0
0	0	0	0	NHA MISTR	0	0	0	0	0	0	0	0	0

* PAST FACTORS *

RATES AND PERCENTS		MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13
TOT OIM DMND RATE	QTR	0.1511	0.1185	0.1283	0.1878	0.3604	0.0544	0.1050	0.0645
TOT OIM DMND RATE	MAH	0.1666	0.1644	0.1628	0.1658	0.1884	0.1600	0.1564	0.1458
BASE NRTS %	QTR	47	53	41	50	39	62	100	75
BASE NRTS %	MAH	41	37	37	37	32	35	45	52
BASE CNDMN %	QTR	6	0	0	4	0	0	0	0
BASE CNDMN %	MAH	26	24	24	24	20	23	14	1
MISTR CNDMN %	QTR	0	0	0	0	0	0	0	0
MISTR CNDMN %	MAH	0	0	0	0	0	0	0	0
PDM JR CNDMN %	QTR	0	0	0	0	0	0	0	0
PDM JR CNDMN %	MAH	0	0	0	0	0	0	0	0
PDM NJR REPL %	QTR	0	0	0	0	0	0	0	0
PDM NJR REPL %	MAH	0	0	0	0	0	0	0	0
PDM NJR PRGM %	QTR	0	0	0	0	0	0	0	0
PDM NJR PRGM %	MAH	0	0	0	0	0	0	0	0
EOH JR CNDMN %	QTR	0	0	0	0	0	0	0	0
EOH JR CNDMN %	MAH	0	0	0	0	0	0	0	0
EOH NJR REPL %	QTR	0	0	0	0	0	0	0	0
EOH NJR REPL %	MAH	0	0	0	0	0	0	0	0
EOH NJR PRGM %	QTR	0	0	0	0	0	0	0	0
EOH NJR PRGM %	MAH	0	0	0	0	0	0	0	0
NHA MISTR JR CNDMN	QTR	0	0	0	0	0	0	0	0
NHA MISTR JR CNDMN	MAH	0	0	0	0	0	0	0	0

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX881
CUR: 10 APR 14 1316
AS OF: 31 DEC 13

SGM: 1280 01 544 0794 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	929 1337 1337	985 1337 1337	1034 1337 1337	148 1083 1337	284 1132 1337	420 1181 1337	506 1220 1337	591 1259 1337 506	676 1298 1337 0	761 1337 1337 761	817 1337 1337 985	873 1337 1337 1181
OIM OPERATING RQMT	135 195 195	144 195 195	151 195 195	22 158 195	41 165 195	61 172 195	74 178 195	86 184 195 74	99 189 195 0	111 195 195 111	119 195 195 144	127 195 195 172
OIM BASE O/ST RQMT	0 0 0	0 0 0	0 0 0	1 0 0	1 0 0	1 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
OIM BASE R-C RQMT	1 0 0	1 0 0	0 0 0	0 0 0	0 0 0	0 0 0	1 0 0	1 0 0 1	1 0 0 0	1 0 0 1	1 0 0 1	1 0 0 0
BASE SFTY LVL-2 (FULL)	14 0 0	14 0 0	15 0 0	14 15 0	14 15 0	14 15 0	14 15 0	14 15 0 14	14 15 0 0	14 15 0 14	14 0 0 14	14 0 0 15
* BASE SFTY LVL-2 (LTD)	14 0 0	14 0 0	15 0 0	14 15 0	14 15 0	14 15 0	14 15 0	14 15 0 14	14 15 0 0	14 15 0 14	14 0 0 14	14 0 0 15
SPECIAL LEVELS	1 1 1	1 1 1	1 1 0	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1 1	1 1 1 0	1 1 1 1	1 1 1 1	1 1 1 1
TOT BASE STK LVL (FULL)	16 1 1	16 1 1	16 1 16	16 16 1	16 16 1	16 16 1	16 16 1	16 16 1 16	16 16 1 0	16 16 1 16	16 1 1 16	16 1 1 16
* TOT BASE STK LVL (LTD)	16 1 1	16 1 1	16 1 16	16 16 1	16 16 1	16 16 1	16 16 1	16 16 1 16	16 16 1 0	16 16 1 16	16 1 1 16	16 1 1 16
DEPOT SAFETY LVL (FULL)	1 1 0	1 0 0	1 0 2	2 1 0	2 1 0	1 1 0	2 1 0	1 0 0 2	1 1 0 0	1 0 0 1	1 2 0 1	1 2 0 1

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1316
AS OF: 31 DEC 13

SGM: 1280 01 544 0794 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
* DEPOT SAFETY LVL (LTD)												
	1	1	1	2	2	1	2	1	1	1	1	1
	1	0	0	1	1	1	1	0	1	0	2	2
	0	0	2	0	0	0	0	0	0	0	0	0
								2	0	1	1	1
WRSK-BLSS RQMT												
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
								2	0	2	2	2
OWRM RQMT (FULL)												
	55	55	55	55	55	55	55	55	55	55	55	55
	55	55	55	55	55	55	55	55	55	55	55	55
	55	55	55	55	55	55	55	55	55	55	55	55
								55	0	55	55	55
* OWRM RQMT (LTD)												
	55	55	55	55	55	55	55	55	55	55	55	55
	55	55	55	55	55	55	55	55	55	55	55	55
	55	55	55	55	55	55	55	55	55	55	55	55
								55	0	55	55	55
ADDITIVE RQMT NON-RECUR												
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
								1	0	1	1	1
TOTAL GROSS RQMT (FULL)												
	210	219	226	98	117	136	150	161	174	186	194	202
	255	254	254	233	240	247	253	258	264	269	256	256
	254	254	271	254	254	254	254	254	254	254	254	254
								150	0	186	219	247
* TOTAL GROSS RQMT (LTD)												
	210	219	226	98	117	136	150	161	174	186	194	202
	255	254	254	233	240	247	253	258	264	269	256	256
	254	254	271	254	254	254	254	254	254	254	254	254
								150	0	186	219	247
SVC ASSETS												
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
								57	0	57	57	57
TOTAL SVC												
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
								57	0	57	57	57
1ST SHORT (FULL)												
	153	162	169	41	60	79	93	104	117	129	137	145
	198	197	197	176	183	190	196	201	207	212	199	199
	197	197	214	197	197	197	197	197	197	197	197	197
								93	0	129	162	190

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REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1316
AS OF: 31 DEC 13
PRGM BEG: 0609

SGM: 1280 01 544 0794 FJ

PART NUMBER: 08579034
CAGE: 14550
ITEM NAME: UP FRONT CONTROLLER

ALC: OO
ES: KKP
IMS: KWG
PMS:

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND: N

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 3
OIM DEP RPR CYCLE DAYS: 43
NJR DEP RPR CYCLE DAYS: 28
CONDITION X ASSET: 0

UNIT PRICE FCST: 5,840.64
UNIT REPAIR COST: 2,277
UNIT REPAIR MANHOURS: 0

SOR	OC	OO	SA	SM	WR	CT
%	0	0	0	0	0	100
SOR	DM	OT	UN			
%	0	0	0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
639	686	681	0	716	MTBD	1372	1372	1372	1372	1372	1372	
0.1564	0.1458	0.1469	0.0000	0.1396	TOT OIM DMND RATE	0.0729	0.0729	0.0729	0.0729	0.0729	0.0729	2013-12
0.0824	0.0765	0.0823	0.0000	0.0897	OIM DEP DMND RATE	0.0383	0.0383	0.0383	0.0383	0.0383	0.0383	
0.0740	0.0693	0.0646	0.0000	0.0499	OIM BASE RPR RATE	0.0346	0.0346	0.0346	0.0346	0.0346	0.0346	
45	52	56		62	BASE NRTS %	52	52	52	52	52	52	
55	48	44		38	BASE PROCESSED %	48	48	48	48	48	48	
14	1	0		6	BASE CNDMN %	1	1	1	1	1	1	
0	0	0		0	MISTR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

50% of Dec-13 TOIMDR

UFC - 50% of CURRENT

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX881
CUR: 10 APR 14 1316
AS OF: 31 DEC 13

SGM: 1280 01 544 0794 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	929 1337 1337	985 1337 1337	1034 1337 1337	148 1083 1337	284 1132 1337	420 1181 1337	506 1220 1337	591 1259 1337 506	676 1298 1337 0	761 1337 1337 761	817 1337 1337 985	873 1337 1337 1181
OIM OPERATING RQMT	68 97 97	72 97 97	75 97 97	11 79 97	21 83 97	31 86 97	37 89 97	43 92 97 37	49 95 97 0	55 97 97 55	60 97 97 72	64 97 97 86
OIM BASE R-C RQMT	0 0 0	0 0 0	0 0 0	1 0 0	1 0 0	1 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
BASE SFTY LVL-2 (FULL)	7 0 0	7 0 0	7 0 0	14 7 0	6 7 0	6 7 0	7 7 0	7 7 0 7	7 7 0 0	7 7 0 7	7 0 0 7	7 0 0 7
* BASE SFTY LVL-2 (LTD)	7 0 0	7 0 0	7 0 0	14 7 0	6 7 0	6 7 0	7 7 0	7 7 0 7	7 7 0 0	7 7 0 7	7 0 0 7	7 0 0 7
SPECIAL LEVELS	1 1 1	1 1 1	1 1 0	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1 1	1 1 1 0	1 1 1 1	1 1 1 1	1 1 1 1
TOT BASE STK LVL (FULL)	8 1 1	8 1 1	8 1 16	16 8 1	8 8 1	8 8 1	8 8 1	8 8 1 8	8 8 1 0	8 8 1 8	8 1 1 8	8 1 1 8
* TOT BASE STK LVL (LTD)	8 1 1	8 1 1	8 1 16	16 8 1	8 8 1	8 8 1	8 8 1	8 8 1 8	8 8 1 0	8 8 1 8	8 1 1 8	8 1 1 8
DEPOT SAFETY LVL (FULL)	2 1 0	2 0 0	2 0 4	0 3 0	4 3 0	3 3 0	2 1 0	2 2 0 2	2 1 0 0	3 1 0 3	2 1 0 2	2 1 0 3
* DEPOT SAFETY LVL (LTD)	2 1 0	2 0 0	2 0 4	0 3 0	4 3 0	3 3 0	2 1 0	2 2 0 2	2 1 0 0	3 1 0 3	2 1 0 2	2 1 0 3

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1316
AS OF: 31 DEC 13

SGM: 1280 01 544 0794 FJ

ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
WRSK-BLSS RQMT												
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
								2	0	2	2	2
OWRM RQMT (FULL)												
	66	66	66	66	66	66	66	66	66	66	66	66
	66	66	66	66	66	66	66	66	66	66	66	66
	66	66	66	66	66	66	66	66	66	66	66	66
								66	0	66	66	66
* OWRM RQMT (LTD)												
	66	66	66	66	66	66	66	66	66	66	66	66
	66	66	66	66	66	66	66	66	66	66	66	66
	66	66	66	66	66	66	66	66	66	66	66	66
								66	0	66	66	66
ADDITIVE RQMT NON-RECUR												
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
								1	0	1	1	1
TOTAL GROSS RQMT (FULL)												
	147	151	154	96	102	111	116	122	128	135	139	143
	168	167	167	159	163	166	167	171	173	175	168	168
	167	167	186	167	167	167	167	167	167	167	167	167
								116	0	135	151	166
* TOTAL GROSS RQMT (LTD)												
	147	151	154	96	102	111	116	122	128	135	139	143
	168	167	167	159	163	166	167	171	173	175	168	168
	167	167	186	167	167	167	167	167	167	167	167	167
								116	0	135	151	166
SVC ASSETS												
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
								57	0	57	57	57
TOTAL SVC												
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
								57	0	57	57	57
1ST SHORT (FULL)												
	90	94	97	39	45	54	59	65	71	78	82	86
	111	110	110	102	106	109	110	114	116	118	111	111
	110	110	129	110	110	110	110	110	110	110	110	110
								59	0	78	94	109
* 1ST SHORT (LTD)												
	90	94	97	39	45	54	59	65	71	78	82	86
	111	110	110	102	106	109	110	114	116	118	111	111
	110	110	129	110	110	110	110	110	110	110	110	110
								59	0	78	94	109

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REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1316
AS OF: 31 DEC 13
PRGM BEG: 0609

SGM: 1280 01 544 0794 FJ

PART NUMBER: 08579034
CAGE: 14550
ITEM NAME: UP FRONT CONTROLLER

ALC: OO
ES: KKP
IMS: KWG
PMS:

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND: N

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 3
OIM DEP RPR CYCLE DAYS: 43
NJR DEP RPR CYCLE DAYS: 28
CONDITION X ASSET: 0

UNIT PRICE FCST: 5,840.64
UNIT REPAIR COST: 2,277
UNIT REPAIR MANHOURS: 0

SOR %	OC	OO	SA	SM	WR	CT
	0	0	0	0	0	100

SOR %	DM	OT	UN
	0	0	0

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
639	686	681	0	716	MTBD	915	915	915	915	915	915	
0.1564	0.1458	0.1469	0.0000	0.1396	TOT OIM DMND RATE	0.1093	0.1093	0.1093	0.1093	0.1093	0.1093	2013-12
0.0824	0.0765	0.0823	0.0000	0.0897	OIM DEP DMND RATE	0.0574	0.0574	0.0574	0.0574	0.0574	0.0574	
0.0740	0.0693	0.0646	0.0000	0.0499	OIM BASE RPR RATE	0.0519	0.0519	0.0519	0.0519	0.0519	0.0519	
45	52	56		62	BASE NRTS %	52	52	52	52	52	52	
55	48	44		38	BASE PROCESSED %	48	48	48	48	48	48	
14	1	0		6	BASE CNDMN %	1	1	1	1	1	1	
0	0	0		0	MISTR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

75% of Dec-13 TOIMDR

UFC - 75% of CURRENT

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAA001
CUR: 10 APR 14 1316
AS OF: 31 DEC 13

SGM: 1280 01 544 0794 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	929 1337 1337	985 1337 1337	1034 1337 1337	148 1083 1337	284 1132 1337	420 1181 1337	506 1220 1337	591 1259 1337 506	676 1298 1337 0	761 1337 1337 761	817 1337 1337 985	873 1337 1337 1181
OIM OPERATING RQMT	102 146 146	108 146 146	113 146 146	16 118 146	31 124 146	46 129 146	55 133 146	65 138 146 55	74 142 146 0	83 146 146 83	89 146 146 108	95 146 146 129
OIM BASE R-C RQMT	0 0 0	0 0 0	0 0 0	1 0 0	1 0 0	1 0 0	1 0 0	1 0 0 1	1 0 0 0	1 0 0 1	0 0 0 0	0 0 0 0
BASE SFTY LVL-2 (FULL)	15 0 0	15 0 0	7 0 0	14 15 0	14 15 0	14 15 0	14 15 0	14 15 0 14	14 15 0 0	14 15 0 14	7 0 0 15	15 0 0 15
* BASE SFTY LVL-2 (LTD)	15 0 0	15 0 0	7 0 0	14 15 0	14 15 0	14 15 0	14 15 0	14 15 0 14	14 15 0 0	14 15 0 14	7 0 0 15	15 0 0 15
SPECIAL LEVELS	1 1 1	1 1 1	1 1 0	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1 1	1 1 1 0	1 1 1 1	1 1 1 1	1 1 1 1
TOT BASE STK LVL (FULL)	16 1 1	16 1 1	8 1 16	16 16 1	16 16 1	16 16 1	16 16 1	16 16 1 16	16 16 1 0	16 16 1 16	8 1 1 16	16 1 1 16
* TOT BASE STK LVL (LTD)	16 1 1	16 1 1	8 1 16	16 16 1	16 16 1	16 16 1	16 16 1	16 16 1 16	16 16 1 0	16 16 1 16	8 1 1 16	16 1 1 16
DEPOT SAFETY LVL (FULL)	1 1 0	0 0 0	3 0 3	1 1 0	1 0 0	1 0 0	0 0 0	0 0 0 0	1 0 0 0	0 0 0 0	2 2 0 0	0 1 0 0
* DEPOT SAFETY LVL (LTD)	1 1 0	0 0 0	3 0 3	1 1 0	1 0 0	1 0 0	0 0 0	0 0 0 0	1 0 0 0	0 0 0 0	2 2 0 0	0 1 0 0

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1316
AS OF: 31 DEC 13

SGM: 1280 01 544 0794 FJ

ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
WRSK-BLSS RQMT												
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
								2	0	2	2	2
OWRM RQMT (FULL)												
	65	65	65	65	65	65	65	65	65	65	65	65
	65	65	65	65	65	65	65	65	65	65	65	65
	65	65	65	65	65	65	65	65	65	65	65	65
								65	0	65	65	65
* OWRM RQMT (LTD)												
	65	65	65	65	65	65	65	65	65	65	65	65
	65	65	65	65	65	65	65	65	65	65	65	65
	65	65	65	65	65	65	65	65	65	65	65	65
								65	0	65	65	65
ADDITIVE RQMT NON-RECUR												
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
								1	0	1	1	1
TOTAL GROSS RQMT (FULL)												
	187	192	192	101	116	131	139	149	159	167	167	179
	216	215	215	203	208	213	217	222	226	230	217	216
	215	215	233	215	215	215	215	215	215	215	215	215
								139	0	167	192	213
* TOTAL GROSS RQMT (LTD)												
	187	192	192	101	116	131	139	149	159	167	167	179
	216	215	215	203	208	213	217	222	226	230	217	216
	215	215	233	215	215	215	215	215	215	215	215	215
								139	0	167	192	213
SVC ASSETS												
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
								57	0	57	57	57
TOTAL SVC												
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
								57	0	57	57	57
1ST SHORT (FULL)												
	130	135	135	44	59	74	82	92	102	110	110	122
	159	158	158	146	151	156	160	165	169	173	160	159
	158	158	176	158	158	158	158	158	158	158	158	158
								82	0	110	135	156
* 1ST SHORT (LTD)												
	130	135	135	44	59	74	82	92	102	110	110	122
	159	158	158	146	151	156	160	165	169	173	160	159
	158	158	176	158	158	158	158	158	158	158	158	158
								82	0	110	135	156

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1401
AS OF: 31 DEC 13
PRGM BEG: 0609

SGM: 1280 01 544 0794 FJ

PART NUMBER: 08579034
CAGE: 14550
ITEM NAME: UP FRONT CONTROLLER

ALC: OO
ES: KKP
IMS: KWG
PMS:

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND: N

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 3
OIM DEP RPR CYCLE DAYS: 43
NJR DEP RPR CYCLE DAYS: 28
CONDITION X ASSET: 0

UNIT PRICE FCST: 5,840.64
UNIT REPAIR COST: 2,277
UNIT REPAIR MANHOURS: 0

SOR %	OC 0	OO 0	SA 0	SM 0	WR 0	CT 100
SOR %	DM 0	OT 0	UN 0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
639	686	681	0	716	MTBD	549	549	549	549	549	549	
0.1564	0.1458	0.1469	0.0000	0.1396	TOT OIM DMND RATE	0.1823	0.1823	0.1823	0.1823	0.1823	0.1823	2013-12
0.0824	0.0765	0.0823	0.0000	0.0897	OIM DEP DMND RATE	0.0957	0.0957	0.0957	0.0957	0.0957	0.0957	
0.0740	0.0693	0.0646	0.0000	0.0499	OIM BASE RPR RATE	0.0866	0.0866	0.0866	0.0866	0.0866	0.0866	
45	52	56		62	BASE NRTS %	52	52	52	52	52	52	
55	48	44		38	BASE PROCESSED %	48	48	48	48	48	48	
14	1	0		6	BASE CNDMN %	1	1	1	1	1	1	
0	0	0		0	MISTR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

UFC - 1.25% of CURRENT

125% of Dec-13 TOIMDR

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1401
AS OF: 31 DEC 13

SGM: 1280 01 544 0794 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM	929 1337 1337	985 1337 1337	1034 1337 1337	148 1083 1337	284 1132 1337	420 1181 1337	506 1220 1337	591 1259 1337 506	676 1298 1337 0	761 1337 1337 761	817 1337 1337 985	873 1337 1337 1181
OIM OPERATING RQMT	169 244 244	180 244 244	188 244 244	27 197 244	52 206 244	77 215 244	92 222 244	108 230 244 92	123 237 244 0	139 244 244 139	149 244 244 180	159 244 244 215
OIM BASE O/ST RQMT	0 0 0	0 0 0	0 0 0	1 0 0	1 0 0	1 0 0	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
OIM BASE R-C RQMT	1 0 0	1 0 0	1 0 0	1 1 0	1 1 0	1 1 0	1 0 0	1 0 0 1	1 0 0 0	1 0 0 1	1 0 0 1	1 0 0 1
BASE SFTY LVL-2 (FULL)	14 0 0	14 0 0	14 0 0	13 14 0	13 14 0	13 14 0	14 15 0	14 15 0 14	14 15 0 0	14 15 0 14	14 0 0 14	14 0 0 14
* BASE SFTY LVL-2 (LTD)	14 0 0	14 0 0	14 0 0	13 14 0	13 14 0	13 14 0	14 15 0	14 15 0 14	14 15 0 0	14 15 0 14	14 0 0 14	14 0 0 14
SPECIAL LEVELS	1 1 1	1 1 1	1 1 0	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1 1	1 1 1 0	1 1 1 1	1 1 1 1	1 1 1 1
TOT BASE STK LVL (FULL)	16 1 1	16 1 1	16 1 16	16 16 1	16 16 1	16 16 1	16 16 1	16 16 1 16	16 16 1 0	16 16 1 16	16 1 1 16	16 1 1 16
* TOT BASE STK LVL (LTD)	16 1 1	16 1 1	16 1 16	16 16 1	16 16 1	16 16 1	16 16 1	16 16 1 16	16 16 1 0	16 16 1 16	16 1 1 16	16 1 1 16
DEPOT SAFETY LVL (FULL)	1 1 0	2 0 0	1 0 3	3 2 0	3 1 0	2 1 0	3 1 0	2 1 0 3	2 1 0 0	2 1 0 2	1 2 0 2	2 2 0 1

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

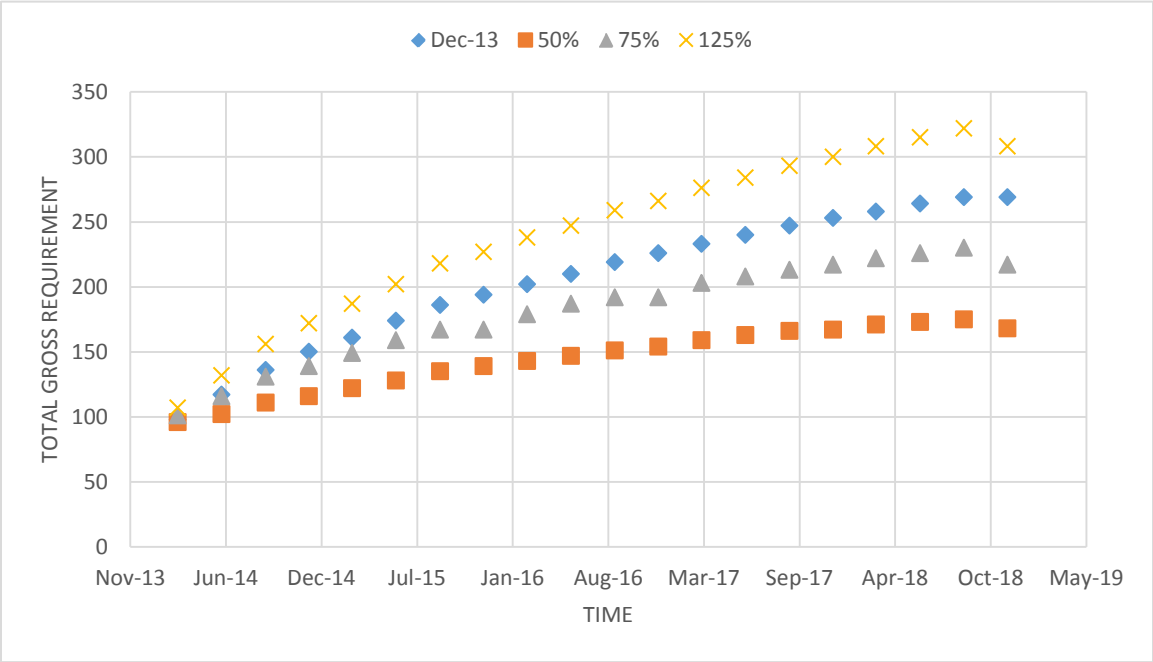
AD200.AIDAX88I
CUR: 10 APR 14 1401
AS OF: 31 DEC 13

SGM: 1280 01 544 0794 FJ

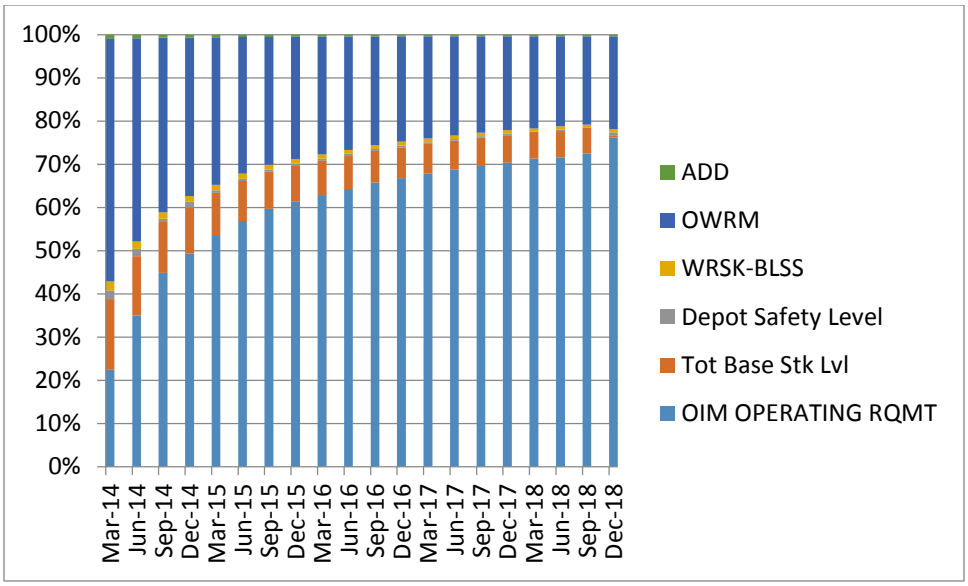
ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
* DEPOT SAFETY LVL (LTD)	1	2	1	3	3	2	3	2	2	2	1	2
	1	0	0	2	1	1	1	1	1	1	2	2
	0	0	3	0	0	0	0	0	0	0	0	0
								3	0	2	2	1
WRSK-BLSS RQMT	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
								2	0	2	2	2
OWRM RQMT (FULL)	58	58	58	58	58	58	58	58	58	58	58	58
	58	58	58	58	58	58	58	58	58	58	58	58
	58	58	58	58	58	58	58	58	58	58	58	58
								58	0	58	58	58
* OWRM RQMT (LTD)	58	58	58	58	58	58	58	58	58	58	58	58
	58	58	58	58	58	58	58	58	58	58	58	58
	58	58	58	58	58	58	58	58	58	58	58	58
								58	0	58	58	58
ADDITIVE RQMT NON-RECUR	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
								1	0	1	1	1
TOTAL GROSS RQMT (FULL)	247	259	266	107	132	156	172	187	202	218	227	238
	307	306	306	276	284	293	300	308	315	322	308	308
	306	306	324	306	306	306	306	306	306	306	306	306
								172	0	218	259	293
* TOTAL GROSS RQMT (LTD)	247	259	266	107	132	156	172	187	202	218	227	238
	307	306	306	276	284	293	300	308	315	322	308	308
	306	306	324	306	306	306	306	306	306	306	306	306
								172	0	218	259	293
SVC ASSETS	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
								57	0	57	57	57
TOTAL SVC	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
	57	57	57	57	57	57	57	57	57	57	57	57
								57	0	57	57	57
1ST SHORT (FULL)	190	202	209	50	75	99	115	130	145	161	170	181
	250	249	249	219	227	236	243	251	258	265	251	251
	249	249	267	249	249	249	249	249	249	249	249	249
								115	0	161	202	236

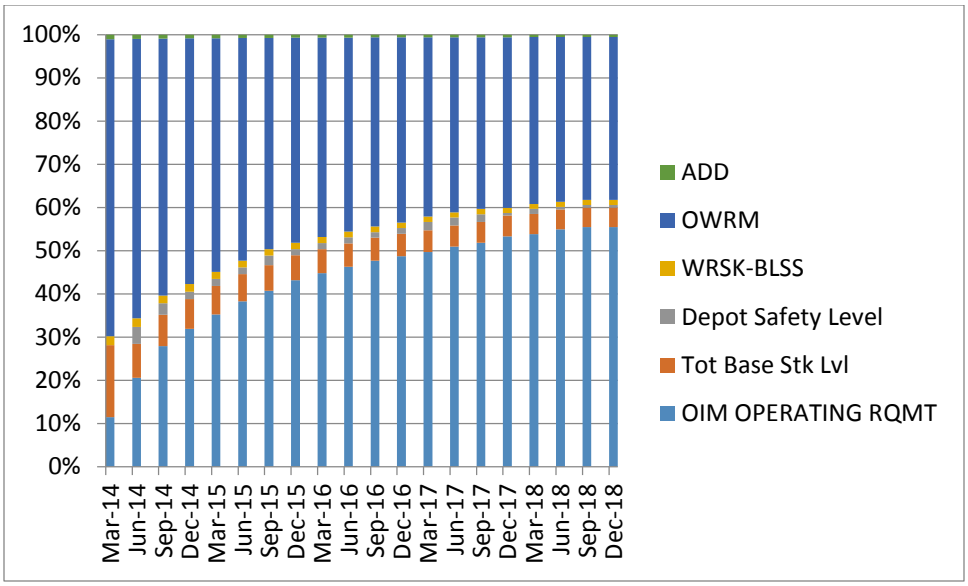
Appendix P: UFC Output Graphs



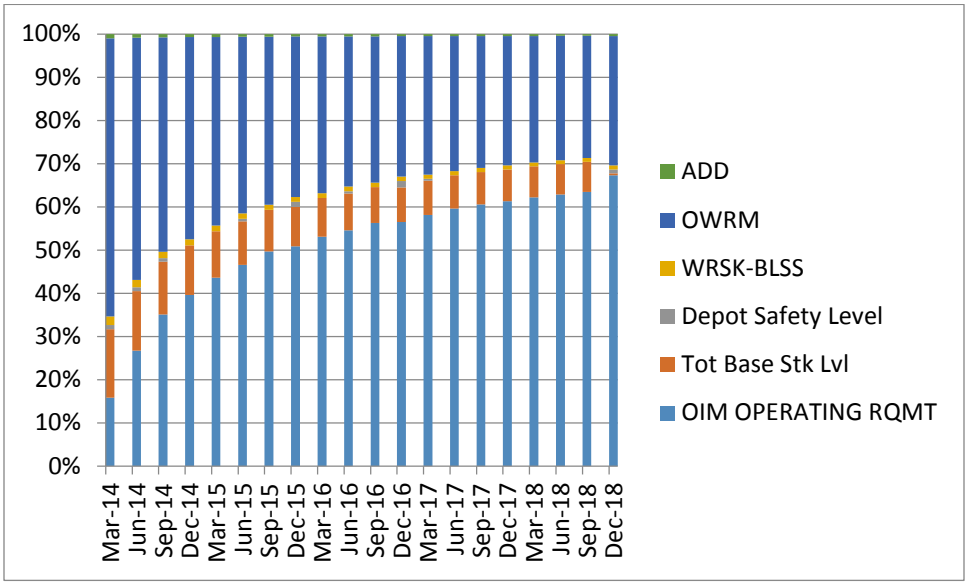
UFC Time vs Total Gross Requirement



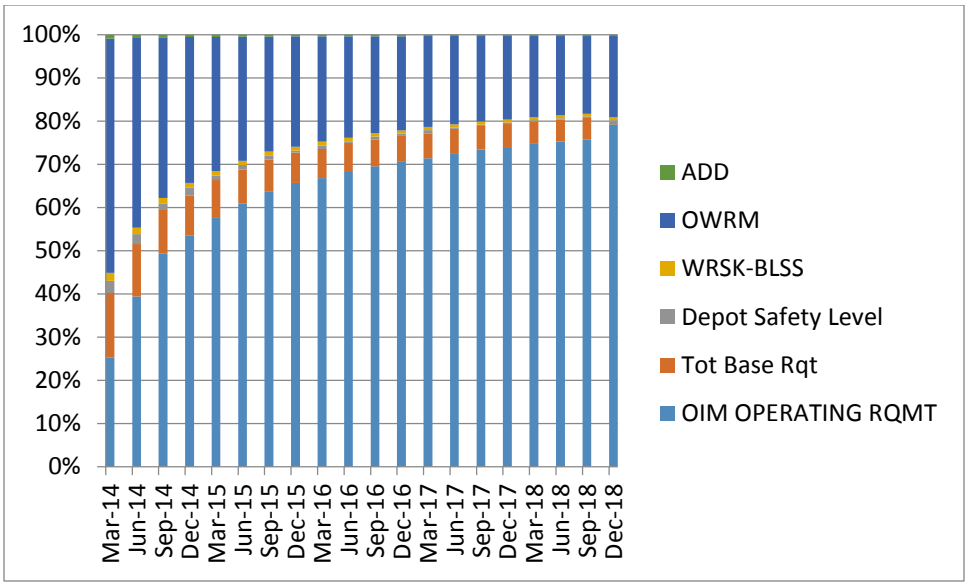
UFC Dec-13 TOIMDR Requirement as percentage of Total Gross Requirement



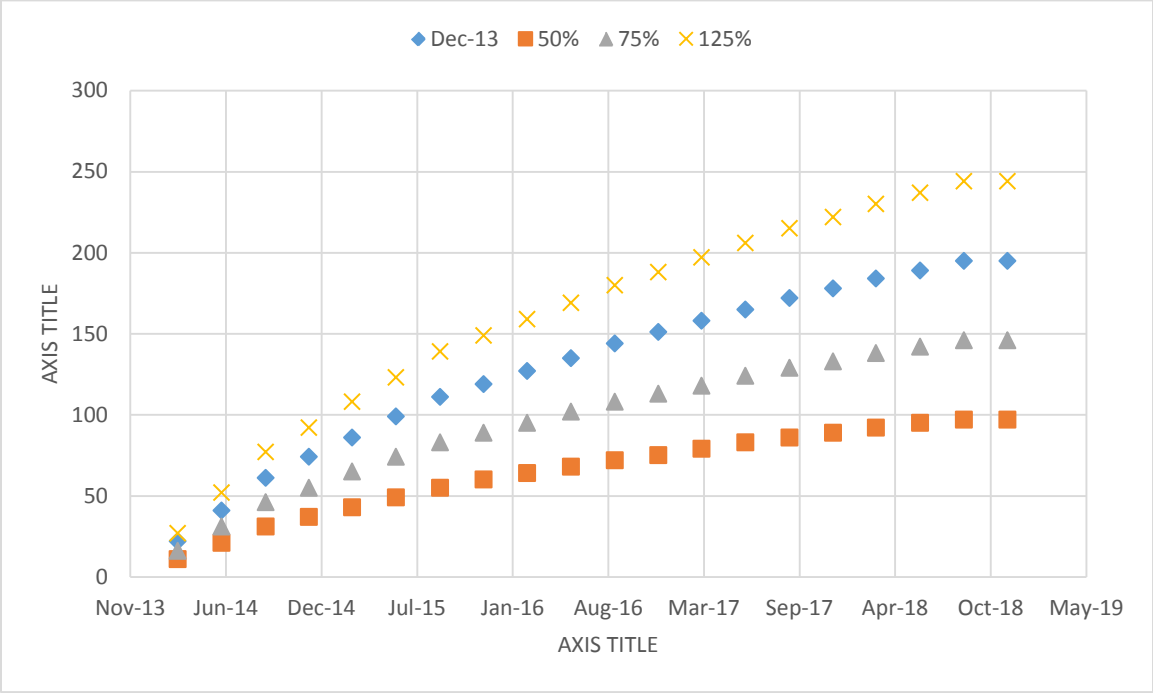
UFC 50% TOIMDR Requirement as percentage of Total Gross Requirement



UFC 75% TOIMDR Requirement as percentage of Total Gross Requirement



UFC 125% TOIMDR Requirement as percentage of Total Gross Requirement



UFC Future Program vs OIM Operating Requirement

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 03 APR 14 0900
AS OF: 31 DEC 13
PRGM BEG: 1009

SGM: 1280 01 586 7702 FJ

PART NUMBER: 281A474-6
CAGE: 03640
ITEM NAME: CICU

ALC: OO
ES: KKP
IMS: KWG
PMS: KWG

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: AAA
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 4
OIM DEP RPR CYCLE DAYS: 57
NJR DEP RPR CYCLE DAYS: 43
CONDITION X ASSET: 0

UNIT PRICE FCST: 181,433.10
UNIT REPAIR COST: 13,332
UNIT REPAIR MANHOURS: 31

SOR	OC	OO	SA	SM	WR	CT	ICS/RIW:
%	0	0	0	0	20	80	EXPIR DATE: 0000
SOR	DM	OT	UN				
%	0	0	0				

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
460	465	494	0	479	MTBD	465	465	465	465	465	465	
0.2173	0.2150	0.2023	0.0000	0.2088	TOT OIM DMND RATE	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	
0.2173	0.2150	0.2023	0.0000	0.2088	OIM DEP DMND RATE	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	
0.0000	0.0000	0.0000	0.0000	0.0000	OIM BASE RPR RATE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
100	100	100		100	BASE NRTS %	100	100	100	100	100	100	
0	0	0		0	BASE PROCESSED %	0	0	0	0	0	0	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
0	0	0		0	MISTR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 03 APR 14 0900
AS OF: 31 DEC 13
PRGM BEG: 1009

SGM: 1280 01 586 7702 FJ

* PAST USAGE HISTORY - SUBGROUP MASTER LEVEL *

(--------- QTRS 12-9 ---------)					(---------- QTRS 8-1 ----------)								8 QTR
MAR-11	JUN-11	SEP-11	DEC-11	TYPE USAGE	MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13	TOTAL
0	0	0	0	BASE RTS	0	0	0	0	0	0	0	0	0
42	56	67	51	BASE NRTS	45	65	73	48	57	45	41	36	410
0	0	0	0	BASE CNDMN	0	0	0	0	0	0	0	0	0
42	56	67	51	BASE REPGENS	45	65	73	48	57	45	41	36	410
0	0	0	0	DEP REPGENS	0	0	0	0	0	0	0	0	0
24	43	45	41	MISTR RPR	49	69	67	62	53	54	50	35	439
0	0	0	0	MISTR CNDMN	0	0	0	0	0	0	0	0	0
0	0	0	0	DEP CNDM TOT	0	0	0	0	0	0	0	0	0

QUARTER OF LAST DEMAND 1312

* * * * * * * * * * * * * * * * * * * TOTAL ITEM PAST INSTALLED PROGRAM - SUBGROUP MASTER TOTAL * * * * * * * * * * * * * * * * * *

(--------- QTRS 12-9 ---------)					(---------- QTRS 8-1 ----------)								8 QTR
MAR-11	JUN-11	SEP-11	DEC-11	TYPE PROGRAM	MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13	TOTAL
228	284	270	235	OIM	225	287	265	245	222	239	238	186	1907
0	0	0	0	PDM	0	0	0	0	0	0	0	0	0
0	0	0	0	ENG OH	0	0	0	0	0	0	0	0	0
0	0	0	0	NHA MISTR	0	0	0	0	0	0	0	0	0

* PAST FACTORS *

RATES AND PERCENTS		MAR-12	JUN-12	SEP-12	DEC-12	MAR-13	JUN-13	SEP-13	DEC-13
TOT OIM DMND RATE	QTR	0.2000	0.2265	0.2755	0.1959	0.2568	0.1883	0.1723	0.1935
TOT OIM DMND RATE	MAH	0.2233	0.2183	0.2269	0.2256	0.2366	0.2379	0.2173	0.2150
BASE NRTS %	QTR	100	100	100	100	100	100	100	100
BASE NRTS %	MAH	97	100	98	97	96	95	100	100
BASE CNDMN %	QTR	0	0	0	0	0	0	0	0
BASE CNDMN %	MAH	0	0	0	0	0	0	0	0
MISTR CNDMN %	QTR	0	0	0	0	0	0	0	0
MISTR CNDMN %	MAH	0	0	0	0	0	0	0	0
PDM JR CNDMN %	QTR	0	0	0	0	0	0	0	0
PDM JR CNDMN %	MAH	0	0	0	0	0	0	0	0
PDM NJR REPL %	QTR	0	0	0	0	0	0	0	0
PDM NJR REPL %	MAH	0	0	0	0	0	0	0	0
PDM NJR PRGM %	QTR	0	0	0	0	0	0	0	0
PDM NJR PRGM %	MAH	0	0	0	0	0	0	0	0
EOH JR CNDMN %	QTR	0	0	0	0	0	0	0	0
EOH JR CNDMN %	MAH	0	0	0	0	0	0	0	0
EOH NJR REPL %	QTR	0	0	0	0	0	0	0	0
EOH NJR REPL %	MAH	0	0	0	0	0	0	0	0
EOH NJR PRGM %	QTR	0	0	0	0	0	0	0	0
EOH NJR PRGM %	MAH	0	0	0	0	0	0	0	0
NHA MISTR JR CNDMN	QTR	0	0	0	0	0	0	0	0
NHA MISTR JR CNDMN	MAH	0	0	0	0	0	0	0	0

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 03 APR 14 0900
AS OF: 31 DEC 13

SGM: 1280 01 586 7702 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM				148	284	420	506	591	676	761	817	873
	929	985	1034	1083	1132	1181	1220	1259	1298	1337	1337	1337
	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337
	1337	1337	1337					591	0	817	1034	1220
OIM OPERATING RQMT				32	61	90	109	127	145	164	176	188
	200	212	222	233	243	254	262	271	279	287	287	287
	287	287	287	287	287	287	287	287	287	287	287	287
	287	287	287					127	0	176	222	262
OIM BASE O/ST RQMT				3	3	3	2	2	2	2	1	1
	1	1	1	1	1	1	1	1	1	1	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					2	0	1	1	1
BASE SFTY LVL-2 (FULL)				19	19	19	20	20	20	20	21	21
	21	21	21	21	21	21	21	21	21	21	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					20	0	21	21	21
* BASE SFTY LVL-2 (LTD)				19	19	19	20	20	20	20	21	21
	21	21	21	21	21	21	21	21	21	21	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					20	0	21	21	21
TOT BASE STK LVL (FULL)				22	22	22	22	22	22	22	22	22
	22	22	22	22	22	22	22	22	22	22	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	22					22	0	22	22	22
* TOT BASE STK LVL (LTD)				22	22	22	22	22	22	22	22	22
	22	22	22	22	22	22	22	22	22	22	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	22					22	0	22	22	22
DEPOT SAFETY LVL (FULL)				1	3	3	0	4	4	4	2	2
	2	2	2	2	4	4	3	3	3	3	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	4					4	0	2	2	3
* DEPOT SAFETY LVL (LTD)				1	3	3	0	4	4	4	2	2
	2	2	2	2	4	4	3	3	3	3	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	4					4	0	2	2	3
WRSK-BLSS RQMT				10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	10	10
	10	10	10					10	0	10	10	10

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 03 APR 14 0900
AS OF: 31 DEC 13

SGM: 1280 01 586 7702 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OWRM RQMT (FULL)				30	30	30	30	30	30	30	30	30
	30	30	30	30	30	30	30	30	30	30	30	30
	30	30	30	30	30	30	30	30	30	30	30	30
	30	30	30					30	0	30	30	30
* OWRM RQMT (LTD)				30	30	30	30	30	30	30	30	30
	30	30	30	30	30	30	30	30	30	30	30	30
	30	30	30	30	30	30	30	30	30	30	30	30
	30	30	30					30	0	30	30	30
TOTAL GROSS RQMT (FULL)				95	126	155	171	193	211	230	240	252
	264	276	286	297	309	320	327	336	344	352	327	327
	327	327	327	327	327	327	327	327	327	327	327	327
	327	327	353					193	0	240	286	327
* TOTAL GROSS RQMT (LTD)				95	126	155	171	193	211	230	240	252
	264	276	286	297	309	320	327	336	344	352	327	327
	327	327	327	327	327	327	327	327	327	327	327	327
	327	327	353					193	0	240	286	327
SVC ASSETS				26	26	26	26	26	26	26	26	26
	26	26	26	26	26	26	26	26	26	26	26	26
	26	26	26	26	26	26	26	26	26	26	26	26
	26	26	26					26	0	26	26	26
SVC DUE IN				0	0	0	0	0	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2					0	0	2	2	2
TOTAL SVC				26	26	26	26	26	28	28	28	28
	28	28	28	28	28	28	28	28	28	28	28	28
	28	28	28	28	28	28	28	28	28	28	28	28
	28	28	28					26	0	28	28	28
1ST SHORT (FULL)				69	100	129	145	167	183	202	212	224
	236	248	258	269	281	292	299	308	316	324	299	299
	299	299	299	299	299	299	299	299	299	299	299	299
	299	299	325					167	0	212	258	299
* 1ST SHORT (LTD)				69	100	129	145	167	183	202	212	224
	236	248	258	269	281	292	299	308	316	324	299	299
	299	299	299	299	299	299	299	299	299	299	299	299
	299	299	325					167	0	212	258	299
2ND SHORT (FULL)				69	100	129	145	167	183	202	212	224
	236	248	258	269	281	292	299	308	316	324	299	299
	299	299	299	299	299	299	299	299	299	299	299	299
	299	299	325					167	0	212	258	299

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REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 27 MAR 14 1230
AS OF: 31 DEC 13
PRGM BEG: 1009

SGM: 1280 01 586 7702 PJ

PART NUMBER: 281A474-6
CAGE: 03640
ITEM NAME: CICU

ALC: OO
ES: KKP
IMS: KWG
PMS: KWG

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BAA
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 4
OIM DEP RPR CYCLE DAYS: 57
NJR DEP RPR CYCLE DAYS: 43
CONDITION X ASSET: 0

UNIT PRICE FCST: 181,433.10
UNIT REPAIR COST: 13,332
UNIT REPAIR MANHOURS: 31

SOR	OC	OO	SA	SM	WR	CT
%	0	0	0	0	20	80
SOR	DM	OT	UN			
%	0	0	0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	FORECASTS CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
460	465	494	0	479	MTBD	930	930	930	930	930	930	
0.2173	0.2150	0.2023	0.0000	0.2088	TOT OIM DMND RATE	0.1075	0.1075	0.1075	0.1075	0.1075	0.1075	2013-12
0.2173	0.2150	0.2023	0.0000	0.2088	OIM DEP DMND RATE	0.1075	0.1075	0.1075	0.1075	0.1075	0.1075	
0.0000	0.0000	0.0000	0.0000	0.0000	OIM BASE RPR RATE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
100	100	100		100	BASE NRTS %	100	100	100	100	100	100	
0	0	0		0	BASE PROCESSED %	0	0	0	0	0	0	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
0	0	0		0	MISTR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

50% of Dec-13 TOIDR

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 27 MAR 14 1230
AS OF: 31 DEC 13

SGM: 1280 01 586 7702 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM				148	284	420	506	591	676	761	817	873
	929	985	1034	1083	1132	1181	1220	1259	1298	1337	1337	1337
	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337
	1337	1337	1337					591	0	817	1034	1220
OIM OPERATING RQMT				16	31	45	54	64	73	82	88	94
	100	106	111	116	122	127	131	135	140	144	144	144
	144	144	144	144	144	144	144	144	144	144	144	144
	144	144	144					64	0	88	111	131
OIM BASE O/ST RQMT				2	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					1	0	1	1	0
BASE SFTY LVL-2 (FULL)				20	21	21	21	21	21	21	21	21
	21	21	21	21	21	21	22	22	22	22	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					21	0	21	21	22
* BASE SFTY LVL-2 (LTD)				20	21	21	21	21	21	21	21	21
	21	21	21	21	21	21	22	22	22	22	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					21	0	21	21	22
TOT BASE STK LVL (FULL)				22	22	22	22	22	22	22	22	22
	22	22	22	22	22	22	22	22	22	22	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	22					22	0	22	22	22
* TOT BASE STK LVL (LTD)				22	22	22	22	22	22	22	22	22
	22	22	22	22	22	22	22	22	22	22	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	22					22	0	22	22	22
DEPOT SAFETY LVL (FULL)				0	0	0	0	2	1	1	0	0
	0	0	1	1	2	2	1	1	2	1	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	2					2	0	0	1	1
* DEPOT SAFETY LVL (LTD)				0	0	0	0	2	1	1	0	0
	0	0	1	1	2	2	1	1	2	1	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	2					2	0	0	1	1
WRSK-BLSS RQMT				10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	10	10
	10	10	10					10	0	10	10	10

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 27 MAR 14 1230
AS OF: 31 DEC 13

SGM: 1280 01 586 7702 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OWRM RQMT (FULL)				30	30	30	30	30	30	30	30	30
	30	30	30	30	30	30	30	30	30	30	30	30
	30	30	30	30	30	30	30	30	30	30	30	30
	30	30	30					30	0	30	30	30
* OWRM RQMT (LTD)				30	30	30	30	30	30	30	30	30
	30	30	30	30	30	30	30	30	30	30	30	30
	30	30	30	30	30	30	30	30	30	30	30	30
	30	30	30					30	0	30	30	30
TOTAL GROSS RQMT (FULL)				78	93	107	116	128	136	145	150	156
	162	168	174	179	186	191	194	198	204	207	184	184
	184	184	184	184	184	184	184	184	184	184	184	184
	184	184	208					128	0	150	174	194
* TOTAL GROSS RQMT (LTD)				78	93	107	116	128	136	145	150	156
	162	168	174	179	186	191	194	198	204	207	184	184
	184	184	184	184	184	184	184	184	184	184	184	184
	184	184	208					128	0	150	174	194
SVC ASSETS				26	26	26	26	26	26	26	26	26
	26	26	26	26	26	26	26	26	26	26	26	26
	26	26	26	26	26	26	26	26	26	26	26	26
	26	26	26					26	0	26	26	26
SVC DUE IN				0	0	0	0	0	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2					0	0	2	2	2
TOTAL SVC				26	26	26	26	26	28	28	28	28
	28	28	28	28	28	28	28	28	28	28	28	28
	28	28	28	28	28	28	28	28	28	28	28	28
	28	28	28					26	0	28	28	28
1ST SHORT (FULL)				52	67	81	90	102	108	117	122	128
	134	140	146	151	158	163	166	170	176	179	156	156
	156	156	156	156	156	156	156	156	156	156	156	156
	156	156	180					102	0	122	146	166
* 1ST SHORT (LTD)				52	67	81	90	102	108	117	122	128
	134	140	146	151	158	163	166	170	176	179	156	156
	156	156	156	156	156	156	156	156	156	156	156	156
	156	156	180					102	0	122	146	166
2ND SHORT (FULL)				52	67	81	90	102	108	117	122	128
	134	140	146	151	158	163	166	170	176	179	156	156
	156	156	156	156	156	156	156	156	156	156	156	156
	156	156	180					102	0	122	146	166

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REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 27 MAR 14 1230
AS OF: 31 DEC 13
PRGM BEG: 1009

SGM: 1280 01 586 7702 FJ

PART NUMBER: 281A474-6
CAGE: 03640
ITEM NAME: CICU

ALC: OO
ES: KKP
IMS: KWG
PMS: KWG

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BAA
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 4
OIM DEP RPR CYCLE DAYS: 57
NJR DEP RPR CYCLE DAYS: 43
CONDITION X ASSET: 0

UNIT PRICE FCST: 181,433.10
UNIT REPAIR COST: 13,332
UNIT REPAIR MANHOURS: 31

SOR	OC	OO	SA	SM	WR	CT
%	0	0	0	0	20	80
SOR	DM	OT	UN			
%	0	0	0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
						(FORECASTS)						
460	465	494	0	479	MTBD	620	620	620	620	620	620	
0.2173	0.2150	0.2023	0.0000	0.2088	TOT OIM DMND RATE	0.1613	0.1613	0.1613	0.1613	0.1613	0.1613	2013-12
0.2173	0.2150	0.2023	0.0000	0.2088	OIM DEP DMND RATE	0.1613	0.1613	0.1613	0.1613	0.1613	0.1613	
0.0000	0.0000	0.0000	0.0000	0.0000	OIM BASE RPR RATE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
100	100	100		100	BASE NRTS %	100	100	100	100	100	100	
0	0	0		0	BASE PROCESSED %	0	0	0	0	0	0	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
0	0	0		0	MISTR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 27 MAR 14 1230
AS OF: 31 DEC 13

SGM: 1280 01 586 7702 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM				148	284	420	506	591	676	761	817	873
	929	985	1034	1083	1132	1181	1220	1259	1298	1337	1337	1337
	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337
	1337	1337	1337					591	0	817	1034	1220
OIM OPERATING RQMT				24	46	68	82	95	109	123	132	141
	150	159	167	175	183	190	197	203	209	216	216	216
	216	216	216	216	216	216	216	216	216	216	216	216
	216	216	216					95	0	132	167	197
OIM BASE O/ST RQMT				2	2	2	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					1	0	1	1	1
BASE SFTY LVL-2 (FULL)				20	20	20	21	21	21	21	21	21
	21	21	21	21	21	21	21	21	21	21	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					21	0	21	21	21
* BASE SFTY LVL-2 (LTD)				20	20	20	21	21	21	21	21	21
	21	21	21	21	21	21	21	21	21	21	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					21	0	21	21	21
TOT BASE STK LVL (FULL)				22	22	22	22	22	22	22	22	22
	22	22	22	22	22	22	22	22	22	22	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	22					22	0	22	22	22
* TOT BASE STK LVL (LTD)				22	22	22	22	22	22	22	22	22
	22	22	22	22	22	22	22	22	22	22	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	22					22	0	22	22	22
DEPOT SAFETY LVL (FULL)				2	1	1	0	3	3	3	1	1
	1	1	1	1	3	3	3	2	2	3	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	3					3	0	1	1	3
* DEPOT SAFETY LVL (LTD)				2	1	1	0	3	3	3	1	1
	1	1	1	1	3	3	3	2	2	3	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	3					3	0	1	1	3
WRSK-BLSS RQMT				10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	10	10
	10	10	10					10	0	10	10	10

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 27 MAR 14 1230
AS OF: 31 DEC 13

SGM: 1280 01 586 7702 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OWRM RQMT (FULL)				30	30	30	30	30	30	30	30	30
	30	30	30	30	30	30	30	30	30	30	30	30
	30	30	30	30	30	30	30	30	30	30	30	30
	30	30	30					30	0	30	30	30
* OWRM RQMT (LTD)				30	30	30	30	30	30	30	30	30
	30	30	30	30	30	30	30	30	30	30	30	30
	30	30	30	30	30	30	30	30	30	30	30	30
	30	30	30					30	0	30	30	30
TOTAL GROSS RQMT (FULL)				88	109	131	144	160	174	188	195	204
	213	222	230	238	248	255	262	267	273	281	256	256
	256	256	256	256	256	256	256	256	256	256	256	256
	256	256	281					160	0	195	230	262
* TOTAL GROSS RQMT (LTD)				88	109	131	144	160	174	188	195	204
	213	222	230	238	248	255	262	267	273	281	256	256
	256	256	256	256	256	256	256	256	256	256	256	256
	256	256	281					160	0	195	230	262
SVC ASSETS				26	26	26	26	26	26	26	26	26
	26	26	26	26	26	26	26	26	26	26	26	26
	26	26	26	26	26	26	26	26	26	26	26	26
	26	26	26					26	0	26	26	26
SVC DUE IN				0	0	0	0	0	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2					0	0	2	2	2
TOTAL SVC				26	26	26	26	26	28	28	28	28
	28	28	28	28	28	28	28	28	28	28	28	28
	28	28	28	28	28	28	28	28	28	28	28	28
	28	28	28					26	0	28	28	28
1ST SHORT (FULL)				62	83	105	118	134	146	160	167	176
	185	194	202	210	220	227	234	239	245	253	228	228
	228	228	228	228	228	228	228	228	228	228	228	228
	228	228	253					134	0	167	202	234
* 1ST SHORT (LTD)				62	83	105	118	134	146	160	167	176
	185	194	202	210	220	227	234	239	245	253	228	228
	228	228	228	228	228	228	228	228	228	228	228	228
	228	228	253					134	0	167	202	234
2ND SHORT (FULL)				62	83	105	118	134	146	160	167	176
	185	194	202	210	220	227	234	239	245	253	228	228
	228	228	228	228	228	228	228	228	228	228	228	228
	228	228	253					134	0	167	202	234

PAGE 1

REPORT
FACTORS/USAGE PRINTOUT
SIMULATION

AD200.AFDAX85U
CUR: 10 APR 14 1401
AS OF: 31 DEC 13
PRGM BEG: 1009

SGM: 1280 01 586 7702 FJ

PART NUMBER: 281A474-6
CAGE: 03640
ITEM NAME: CICU

ALC: OO
ES: KKP
IMS: KWG
PMS: KWG

ERRC: T
PMIC: A
MIEC: 3AE
INTERP IND:

ACT CD: 7
NEW:
CAT:
FEEMS IND:

ITEM PRGM SEL: 1000
FACTOR IND: BBB
BASE RTS EXCL:
SFTY LVL EXCL:

BASE RPR CYCLE DAYS: 4
OIM DEP RPR CYCLE DAYS: 57
NJR DEP RPR CYCLE DAYS: 43
CONDITION X ASSET: 0

UNIT PRICE FCST: 181,433.10
UNIT REPAIR COST: 13,332
UNIT REPAIR MANHOURS: 31

SOR	OC	OO	SA	SM	WR	CT
%	0	0	0	0	20	80
SOR	DM	OT	UN			
%	0	0	0			

ICS/RIW:
EXPIR DATE: 0000

* RATES AND PERCENTS *

LAST USED	24 MO	12 MO	PRELOG	EXPON	RATES AND PERCENTS	(FORECASTS) CUR	1ST	2ND	3RD	4TH	5TH	FCST DT
460	465	494	0	479	MTBD	372	372	372	372	372	372	
0.2173	0.2150	0.2023	0.0000	0.2088	TOT OIM DMND RATE	0.2688	0.2688	0.2688	0.2688	0.2688	0.2688	2013-12
0.2173	0.2150	0.2023	0.0000	0.2088	OIM DEP DMND RATE	0.2688	0.2688	0.2688	0.2688	0.2688	0.2688	
0.0000	0.0000	0.0000	0.0000	0.0000	OIM BASE RPR RATE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
100	100	100		100	BASE NRTS %	100	100	100	100	100	100	
0	0	0		0	BASE PROCESSED %	0	0	0	0	0	0	
0	0	0		0	BASE CNDMN %	0	0	0	0	0	0	
0	0	0		0	MISTR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	PDM NJR REPL %	0	0	0	0	0	0	
0	0	0		0	PDM NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	EOH JR CNDMN %	0	0	0	0	0	0	
0	0	0		0	EOH NJR REPL %	0	0	0	0	0	0	
0	0	0		0	EOH NJR PRGM %	0	0	0	0	0	0	
0	0	0		0	NHA MISTR JR CNDMN	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR REPL	0	0	0	0	0	0	
0	0	0		0	NHA MISTR NJR PRGM	0	0	0	0	0	0	

CICU - 1.25% of CURRENT

125% of Dec-13 TOIMDR

REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1401
AS OF: 31 DEC 13

SGM: 1280 01 586 7702 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OIM PROGRAM				148	284	420	506	591	676	761	817	873
	929	985	1034	1083	1132	1181	1220	1259	1298	1337	1337	1337
	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337	1337
	1337	1337	1337					591	0	817	1034	1220
OIM OPERATING RQMT				40	76	113	136	159	182	205	220	235
	250	265	278	291	304	317	328	338	349	359	359	359
	359	359	359	359	359	359	359	359	359	359	359	359
	359	359	359					159	0	220	278	328
OIM BASE O/ST RQMT				4	4	4	2	2	2	2	2	2
	2	2	1	1	1	1	1	1	1	1	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					2	0	2	1	1
BASE SFTY LVL-2 (FULL)				14	15	16	20	20	20	20	20	20
	20	20	21	21	32	32	21	21	21	21	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					20	0	20	21	21
* BASE SFTY LVL-2 (LTD)				14	15	16	20	20	20	20	20	20
	20	20	21	21	32	32	21	21	21	21	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0					20	0	20	21	21
TOT BASE STK LVL (FULL)				18	19	20	22	22	22	22	22	22
	22	22	22	22	33	33	22	22	22	22	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	33					22	0	22	22	22
* TOT BASE STK LVL (LTD)				18	19	20	22	22	22	22	22	22
	22	22	22	22	33	33	22	22	22	22	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	33					22	0	22	22	22
DEPOT SAFETY LVL (FULL)				0	0	0	1	5	5	5	4	4
	4	4	3	3	0	0	4	4	4	4	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	5					5	0	4	3	4
* DEPOT SAFETY LVL (LTD)				0	0	0	1	5	5	5	4	4
	4	4	3	3	0	0	4	4	4	4	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	5					5	0	4	3	4
WRSK-BLSS RQMT				10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10	10	10	10	10
	10	10	10					10	0	10	10	10

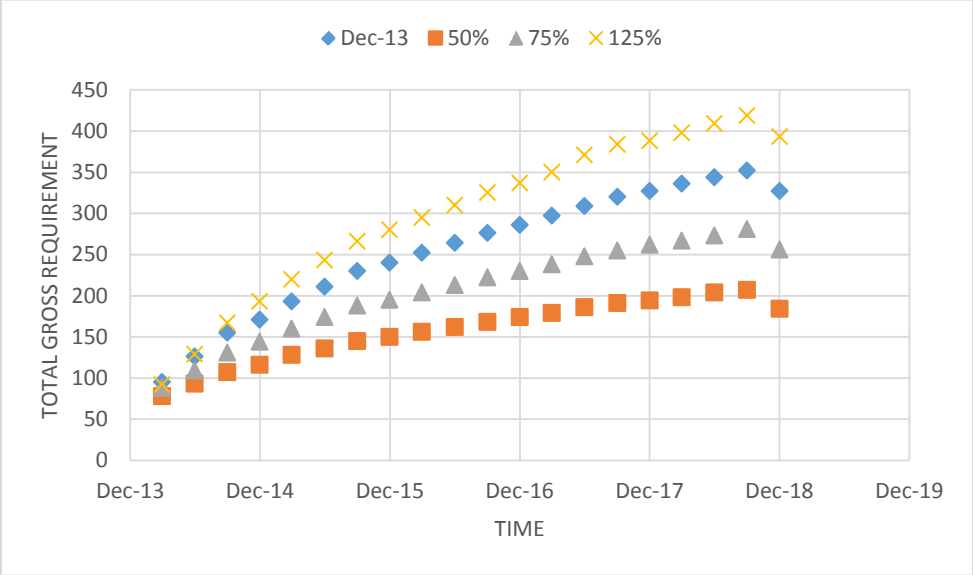
REPORT
SGM COMPUTATION WORKSHEET RQMTS
SIMULATION

AD200.AIDAX88I
CUR: 10 APR 14 1401
AS OF: 31 DEC 13

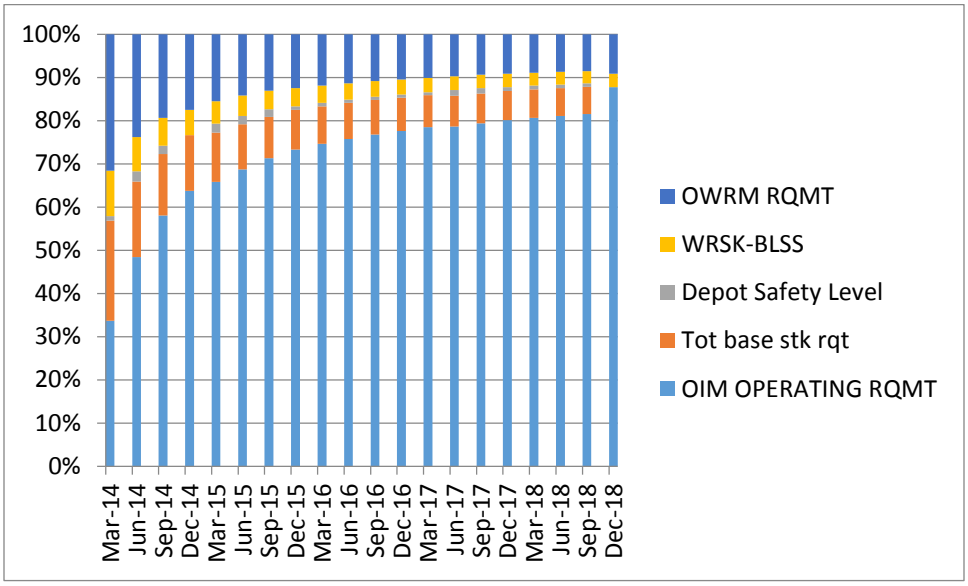
SGM: 1280 01 586 7702 FJ ALC: OO IMS: KWG ES: KKP

LINE ID:	JUN 13 JUN 16 JUN 19 JUN 22	SEP 13 SEP 16 SEP 19 SEP 22	DEC 13 DEC 16 DEC 19 RETN	MAR 14 MAR 17 MAR 20	JUN 14 JUN 17 JUN 20	SEP 14 SEP 17 SEP 20	DEC 14 DEC 17 DEC 20	MAR 15 MAR 18 MAR 21 PCLT	JUN 15 JUN 18 JUN 21 CY PD	SEP 15 SEP 18 SEP 21 AY PD	DEC 15 DEC 18 DEC 21 BY PD	MAR 16 MAR 19 MAR 22 EY PD
OWRM RQMT (FULL)				24	24	24	24	24	24	24	24	24
	24	24	24	24	24	24	24	24	24	24	24	24
	24	24	24	24	24	24	24	24	24	24	24	24
	24	24	24					24	0	24	24	24
* OWRM RQMT (LTD)				24	24	24	24	24	24	24	24	24
	24	24	24	24	24	24	24	24	24	24	24	24
	24	24	24	24	24	24	24	24	24	24	24	24
	24	24	24					24	0	24	24	24
TOTAL GROSS RQMT (FULL)				92	129	167	193	220	243	266	280	295
	310	325	337	350	371	384	388	398	409	419	393	393
	393	393	393	393	393	393	393	393	393	393	393	393
	393	393	431					220	0	280	337	388
* TOTAL GROSS RQMT (LTD)				92	129	167	193	220	243	266	280	295
	310	325	337	350	371	384	388	398	409	419	393	393
	393	393	393	393	393	393	393	393	393	393	393	393
	393	393	431					220	0	280	337	388
SVC ASSETS				26	26	26	26	26	26	26	26	26
	26	26	26	26	26	26	26	26	26	26	26	26
	26	26	26	26	26	26	26	26	26	26	26	26
	26	26	26					26	0	26	26	26
SVC DUE IN				0	0	0	0	0	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2					0	0	2	2	2
TOTAL SVC				26	26	26	26	26	28	28	28	28
	28	28	28	28	28	28	28	28	28	28	28	28
	28	28	28	28	28	28	28	28	28	28	28	28
	28	28	28					26	0	28	28	28
1ST SHORT (FULL)				66	103	141	167	194	215	238	252	267
	282	297	309	322	343	356	360	370	381	391	365	365
	365	365	365	365	365	365	365	365	365	365	365	365
	365	365	403					194	0	252	309	360
* 1ST SHORT (LTD)				66	103	141	167	194	215	238	252	267
	282	297	309	322	343	356	360	370	381	391	365	365
	365	365	365	365	365	365	365	365	365	365	365	365
	365	365	403					194	0	252	309	360
2ND SHORT (FULL)				66	103	141	167	194	215	238	252	267
	282	297	309	322	343	356	360	370	381	391	365	365
	365	365	365	365	365	365	365	365	365	365	365	365
	365	365	403					194	0	252	309	360

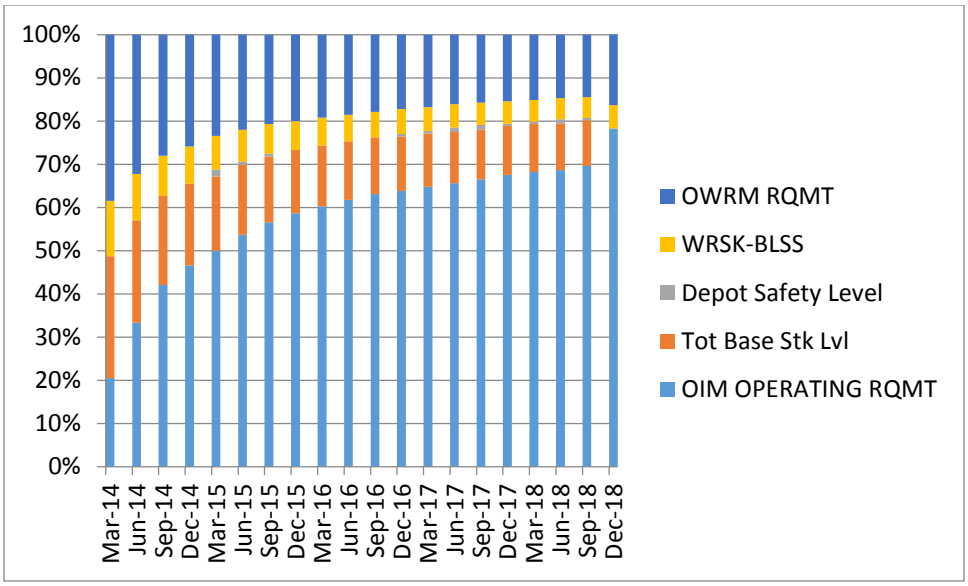
Appendix R: CICU Output Graphs



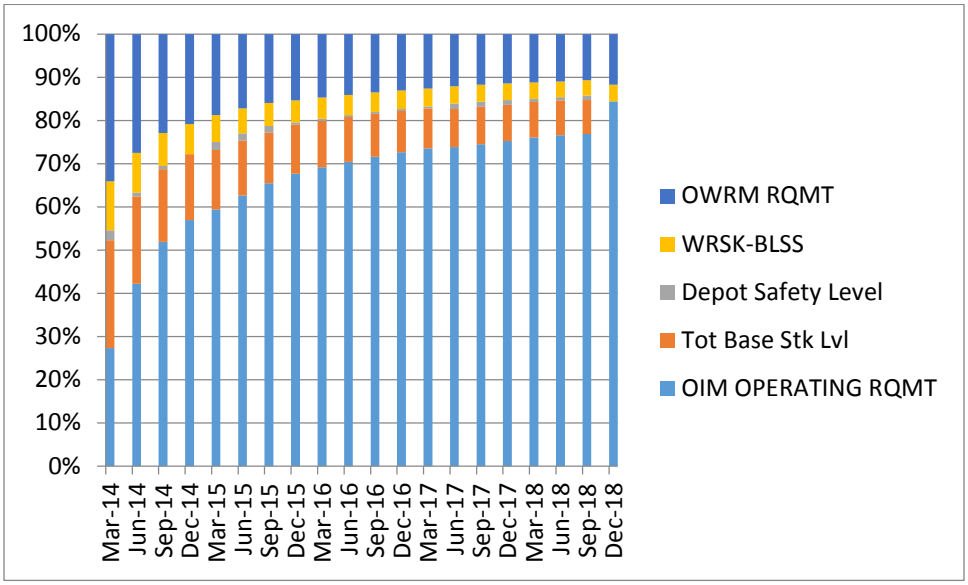
CICU Future Program vs Total Gross Requirement



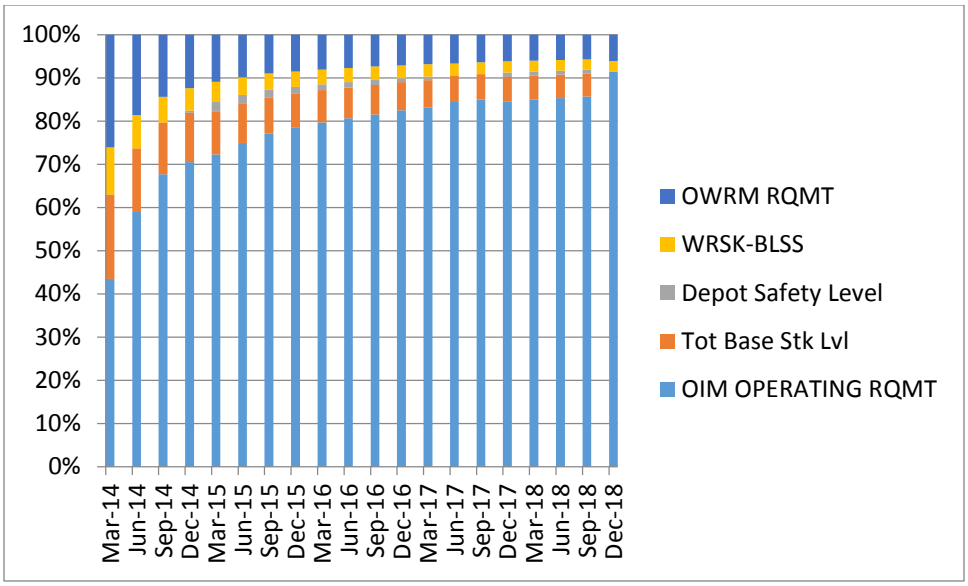
TOIMDR Requirement as percentage of Total Gross Requirement



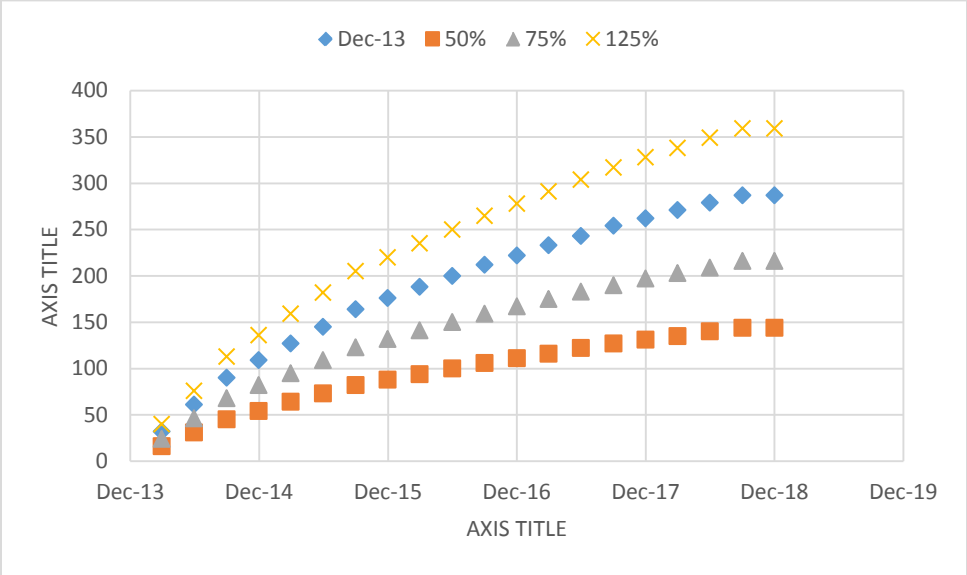
CICU 50% TOIMDR Requirement as percentage of Total Gross Requirement



CICU 75% TOIMDR Requirement as percentage of Total Gross Requirement



CICU 125% TOIMDR Requirement as percentage of Total Gross Requirement



CICU Future Program vs OIM Operating Requirement

Appendix S: A-10C Avionics NMCS Study

DEPARTMENT OF THE AIR FORCE
23D MAINTENANCE GROUP (ACC)
MOODY AIR FORCE BASE, GEORGIA

16 MAY 2014

MEMORANDUM FOR 23 CMS/MXM

FROM: 23 MOF/MXOOA

SUBJECT: A-10C Avionics Study

1. This memorandum documents a study performed by 23 MOF Maintenance Analysis on six A-10C avionics components. The purpose of the study was to identify the mission impact of supply drivers over a two year period from 1 January 2012 through 31 December 2013.

2. Maintenance Analysis searched the maintenance records in Integrated Maintenance Data System of assigned 23d Wing A-10C aircraft to identify the total amount of Not Mission Capable Supply time for six avionics components. These components are listed in the following table, along with their stock numbers and Work Unit Codes. The results of this study are attached in attachment 1. These six components accounted for 2024.1 NMCS hours between 1 January 2012 and 31 December 2013.

Description	NSN	WUC
NAV MODE Relay Box	5945-01-570-8885	71CL0
MISC Relay Box	5945-01-568-1990	42FAB
Fuel & Engine Relay Box (FERB)	6110-01-570-6859	42FAE
Multi-function Color Display Unit (MFCD)	1260-01-543-9004	82BA0
Up Front Controller (UFC)	1280-01-544-0794	82C00
Central Interface Control Unit (CICU)	1280-01-586-7702	82AA0

3. If there are any questions or concerns regarding this study contact SSgt Michael Cartone at 229-257-4130.

MICHAEL A. CARTONE, SSgt, USAF
Asst NCOIC, Maintenance Analysis

1 Attachment:
1. NMCS Study

Attack · Rescue · Protect

Attachment 1: Summary of A-10C Avionics NMCS Study

The following table summarizes the search results for NMCS time lost in the five subsystems encompassing the NAV MODE Relay Box, MISC Relay Box, Fuel & Engine Relay Box, Multi-function Color Display Unit, Up Front Controller, and Central Interface Control Unit. These six components accounted for 2024.1 NMCS hours between 1 January 2012 and 31 December 2013.

TNMCS hours by Avionics Subsystems (2012-2013)		
Subsystem	**Nomenclature**	**TNMCS hrs**
71C	Nav Mode Controls	917.7
42F	AC/DC Distr Sys	1.3
82B	Displays	0
82C	Up Front Controller	0
82A	Integrated Data and Weapon	1105.1
		2024.1

Disclaimer:

The data above only shows hours for the 50 A-10C aircraft assigned to the 23d Wing at Moody AFB, GA. These hours only represent lead downtime when aircraft were waiting for these subsystems to be repaired/replaced in order to become flyable. Additional time waiting for the specific parts listed in the memo could potentially be hidden from IMDS due to other maintenance drivers with longer lead times, such as a 'Phase' work unit code. Hours could also be hidden if these parts were cannibalized from other aircraft.

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Vita

Captain Andrew J. Berger is originally from Carmel, IN. He graduated from Purdue University in 2008 with a Bachelor of Science in Aeronautical Engineering. Captain Berger commissioned through Reserve Officer Training Corps in May 2008 as a Astronautical Developmental Engineer. Captain Berger is currently assigned to the B-2 Spirit Sustainment Branch, Tinker AFB OK as an Aerospace Systems Engineer. As a Aerospace Systems Engineer, he is responsible for Low Observables, Software Sustainment, and Weapon System Sustainment Center operations.

Captain Caleb Murphy is originally from Morgantown, WV. He enlisted in the Air Force in June 2001. He graduated from West Virginia University in 2007 with a Bachelor of Science in Mechanical Engineering. After graduation, he worked as a Structural Analyst for Bettis Atomic Power Laboratory in West Mifflin, PA. Captain Murphy commissioned through Officer Training School in February 2009 as a Developmental Engineer. Captain Murphy is currently performing a career broadening assignment as an Aircraft Maintenance Officer in the 23d Maintenance Group, Moody AFB, GA. As the Maintenance Operations Officer for the 23d Component Maintenance Squadron, he is responsible for egress, aircraft fuels, propulsion, hydraulic, and electro-environmental maintenance on 50 A-10C, 9 HC-130, and 12 HH-60G aircraft. Captain Murphy manages maintenance and supply discipline, safety, upgrade training, security, mobility, self-inspection, and environmental programs for 179 personnel.

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22-05-2014	Master's Thesis	June 2014

TITLE AND SUBTITLE

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5a. CONTRACT NUMBER

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)

Berger, Andrew J., Captain, USAF
Murphy, Caleb S., Captain, USAF

5d. PROJECT NUMBER

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAMES(S) AND ADDRESS(S)

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Graduate School of Engineering and Management (AFIT/ENV)
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WPAFB OH 45433-8865

8. PERFORMING ORGANIZATION REPORT NUMBER

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14. ABSTRACT

This thesis researched the accuracy of demand forecasting and impact of demand variation on requirements definition for Air Force aircraft secondary items. Specifically, this thesis sought to answer three questions: "How does the Air Force calculate item requirements?", "How accurate is the current system at predicting future item requirements?", and "How do variations in predicted demand change item requirements?" The literature review described the Air Force supply system for aircraft secondary items. Analysis into current demand forecast accuracy found that the level of error between actual and predicted historic demand was as high as 92% for the items studied. Furthermore, this analysis identified a flaw in the calculation used by supply specialists to measure demand forecast accuracy. Research found that demand rates are the most influential factor in computing item requirements. A 50% change in TOIMDR resulted in a Total Gross Requirement change of 33%. A 25% increase or decrease in TOIMDR created a 16% respective change in Total Gross Requirement. This thesis concluded by providing recommendations for effective accuracy measures and future research topics to improve item requirement forecasting.

15. SUBJECT TERMS

D200A, Demand Forecasting, Forecasting Accuracy, Aircraft Spare Parts

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